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Decoration of Chancel, Essex Church, Notting Hill-gate. Mr. Ronald P. Jones, Architect.

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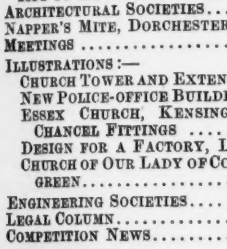
Some Recent Discoveries in Rome and Ostia.



IN July, 1906, an important discovery was made, the bearing of which upon Roman topography was not at first appreciated, on the Janiculum, in the construction of a gardener's house in the former Villa Sciarra, now the property of Mr. Wurts. At a depth of 15 or 20 ft., in sinking the foundations, a group of finely sculptured architectural fragments, some altars bearing inscriptions, etc., were found. We have unfortunately no record of the position of the various pieces, so that we do not know for certain whether they were found *in situ* or whether the building to which they belonged had been already destroyed in ancient times. But from the inscriptions it is clear that this place was the site of the *Lucus Furrinae*, the grove in which Gaius Gracchus met his death, after an unsuccessful attempt to escape, at the hands of his faithful slave, who then committed suicide. In the imperial period, at the end of the IInd century A.D., this grove became the seat of various Syrian worships, a certain Gaionas being responsible for several of the dedications. One of the most interesting of these is in Greek, and is carved on the upper surface of a block of white marble, 4 ft. square, with a hole in the centre, which served as the orifice of a fountain. This is clear, as M. Gauckler rightly maintains (*Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres*. 1908, pp. 510 *sqq*; see also *Mélanges de l'École Francaise*, 1908, 283) from the existence on the underside of the block of the traces of a lead pipe (lead pipes were, it must be added, actually found with the marble blocks, but not preserved), and of calcareous deposit on its surface; and that this was its object was made abundantly clear by his researches last April, when, somewhat higher up the small valley or ravine, which was the site of the grove, the sacred spring of Furrina (one of the dedications, indeed, mentioned the nymphs bearing the name Furrinae) was found and cleared out. It issued from various points in a natural stalactitic grotto, and had been carefully canalised; the supply, now restored, is copious and good, the water being highly calcareous.

The spring was conducted by a conduit to the fountain dedicated by Gaionas, to which belonged the block of marble just described. A few yards to the north of the site of the discovery of this block, just outside the property of Mr. Wurts, excavations, conducted by two Swiss archæologists, MM. G. Nicole and G. Darier, of Geneva (under the general advice and direction of M. Gauckler) have laid bare the remains of the sanctuary dedicated by Gaionas. The first part excavated was the temple itself, a roughly rectangular building with an apse at its west end. Its walls are badly built, of concrete faced with small, rough blocks of tufa (which was of course coated with stucco), and are perhaps attributable to the IIIrd or even the IVth century A.D. The niche at the back of the apse is some 3 ft. above the ground level; in the floor of it was sunk a kind of box, enclosed by tiles, which contained the brain-pan of a human skull.

M. Gauckler is probably right in supposing that this is the result of a human sacrifice made at the consecration of the temple, the skull being placed right under the statue of the deity which occupied the niche. A part of this statue was actually found—a torso in white marble of the type of a seated Jupiter or Serapis, in the style of the Antonine period, but representing probably a Syrian Baal. In the centre of the *cella* of the temple was found a triangular altar, with the pointed end towards the apse. The entrance to the vestibule in front of the *cella* had as its threshold a fine block of marble, originally the table of a rectangular altar (precisely like the altar table of a church), bearing on its four sides an inscription recording its dedication by the above-mentioned Gaionas in 176 A.D. for the safe return and victory of Marcus Aurelius and Commodus, and on its upper face a partially erased dedication to Venus (Caelestis?), identified probably with the Syrian Adargatis or Astarte.

The excavations had gone thus far, the end of June, and are described in the article of the *Comptes Rendus*, cited above; and their resumption during the present winter has led to discoveries of not less interest.

It has been found that the *cella* had two lateral chambers, accessible only from it, and but scantily lighted. It seems probable, in fact, that the worship there carried on was of a secret nature, possibly carried on at night. The building itself, indeed, was partly constructed against the hill which enclosed the sacred grove. The *cella* lay at one end of a larger courtyard, rectangular in shape, approached from the south (*i.e.*, from the site of the discoveries of 1906) by three wide marble steps. Below the ground level of this courtyard were found a number of *amphorae*, both broken and entire, with bones and other remains of sacrifices; most of the entire *amphorae*, however, contained only earth, and seem to have been used for levelling up the floor and keeping the area dry, as is the case in the House of the Vestals. The courtyard is crossed at a depth of several feet by a brick wall, which belongs to an earlier building, probably of the IInd

century A.D.—perhaps the original sanctuary; another wall has been found under the marble steps. At the east end of the courtyard the excavations of the last few weeks have brought to light the remains of another sanctuary of very peculiar plan. It is separated from the courtyard by a wall, in which is a niche which lies on the axis of the first sanctuary. This was originally occupied by a beautiful statue in the Egyptian style in black basalt, representing a divinity standing. The style is that of the time of Hadrian, and the grace imparted by the artist to the somewhat stiff type, despite the hard material, is remarkable.

The statue was found in fragments lying in front of the niche, and below it, and parallel to the wall in which is the niche, were three tombs covered with tiles, of a comparatively late period, it would seem. The niche opens upon a central chamber, which terminates to the east in an octagon. In this, with its base towards the niche (*i.e.*, towards the west) and its apex towards the east, an equilateral triangle of concrete was discovered, of about 3 metres on each side. In its sidewalls, which are slightly raised above the floor-level within the triangle, are holes as if for beams to support a wooden platform. In the centre of the floor it was noticed that there was a square opening, covered by a large tile two ft. square. Under this were two others, and on the removal of the third there was disclosed to view, lying in a square hole, with sides of small stones set in mortar, a statue in gilt bronze, about 1½ ft. high, representing a female divinity with her arms close to her sides, with a serpent twined round her body, which is swathed with drapery like a mummy. In the spaces between the coils of the serpent were six hen's eggs. The figure lay upon a bed of granular earth, apparently impregnated with some liquid. It is this discovery, made on February 6, which has aroused the greatest interest.

On each side of the central chamber are two polygonal chambers, of irregular form, but symmetrical with one another, forming the means of access from it to the large rectangular court on the west, the niche containing the statue in the Egyptian style, already described, being situated between them. In one of these was found a statue of Dionysus (entire, and apparently hidden) in white marble, with considerable remains of the original gilding, of a very graceful type; and in the other fragments of a second statue of the same kind, but smaller, were discovered. Close to the former was found a fragment of the base of a candelabrum with three dancing figures.

It is clear that we are here face to face with discoveries of the highest importance, especially interesting for the evidence that they give of the penetration of foreign cults in Rome; the formal state religion had already begun to be found insufficient for men's spiritual needs in the days of the Republic, and under the Empire Oriental worships appealing to the imagination, and especially those in which some mystic rites and ceremonies were involved, made rapid progress. The intricate plan of the place of worship itself and its internal arrangements are quite novel, and enable us to realise more vividly the nature and significance of these cults. We may congratulate its discoverers heartily on the progress they have already made, and await from the continuation of their labours the solution of some of the problems which present themselves.

The excavations of Ostia, after having remained quiescent for some eighteen years, during which period only comparatively small discoveries were made (with the single exception of the clearing, in 1897, of some 50 yds. of the street between the Forum and the barracks of the *vigiles*, a force who were police and firemen combined), have once more been resumed on a large scale. The object of the work is, in a sense, twofold, for the rubbish from the excavations will be usefully employed in filling up the Fiume Morto, a portion of the Tiber bed, which was abandoned by the river after the great flood of 1557, and has served up till now as a breeding place for the malarial mosquito, and will also be in part thrown into the river, in order to protect the site of ancient Ostia against its encroachments. Work commenced in 1907 in the street which had been excavated ten years before and which, from the discovery then of an interesting public fountain, took the name of Via della Fontana.* The clearing of the rooms on the west side of it soon led to the discovery of one with a black and white mosaic pavement with geometric designs, and the walls decorated with paintings with an architectural scheme, and single figures in the panels, red and yellow being the predominating colours; the start of the barrel vault, which was also painted, is preserved. The style of the paintings is the so-called second Pompeian style, according to the classification of Mau, who divides the paintings of Pompeii into four styles. The room originally opened directly on to the street, but the door was subsequently converted into a window, the panes of which were formed of mica, of which many fragments have been found. It is now approached by a corridor leading direct from the Via della Fontana to the theatre and Forum.

The Via della Fontana narrows somewhat at its southern end, and leads into the prolongation of the street at the back of the theatre, which has recently been cleared. Like the majority of the streets of the town, it contains shops and warehouses, and in front of those on the south side ran a row of brick pillars. In the centre of the street, which is here of considerable width, marble columns and Corinthian capitals were found, as though there might have been a colonnade or some such structure in the centre. At one point the foundations of the brick arcades go down about 7 ft., probably owing to the existence of soft ground, which rendered it necessary to go deep for the foundations; the foundations of a small brick building (subsequently added) are quite shallow. To the north are the baths excavated in 1891. At this point another street goes off to the south to join the Via Ostiensis, which runs parallel to the street of which we have been speaking. In the street going off to the south the buildings are only preserved to 3 or 4 ft. above the ground. On the west side of it almost all the apertures have been closed by rough walling, possibly in the IXth century, when part of the town was refortified by Pope Gregory IV. On this side of the street is a small rectangular chamber, to which steps descend from the west, with walls of *opus incertum*, a pavement of irregularly laid marble slabs in the centre (in which is a circular hole), and remains of a raised concrete foundation all round it (possibly another Mithraeum? or at any rate a sanctuary of some sort?). A little further on we see walls of *opus reticulatum* at a lower level and different orientation, apparently passing obliquely under the street, but not yet excavated on both sides of it. Interesting discoveries of tombs have also been made along the new road from modern Ostia to the sea. (See *Notizie degli Scavi*, 1908, *passim*.)

No buildings or objects of surpassing value or interest have as yet been discovered in the course of the new excavations, but their continuance may bring forth discoveries of great importance; and in any case what is of the highest importance is that substantial progress should be made towards the complete excavation of this great commercial town, which will furnish one of the greatest attractions to visitors to Rome.

* *Notizie degli Scavi*, 1897, 519; 1907, 212. The fountain consists of a square reservoir for distribution, and of a rectangular basin, 11⅛ by 4½ ft., covered with a vaulted roof, from which the water could either be reached by a rectangular aperture at one end, or be drawn off by taps.

TO THE RESCUE OF BATH.

THERE is no town in England more finely and characteristically architectural than Bath. Built as a small city of pleasure and fashion, it was laid out, in its residential portions, in a style of what may be called graceful stateliness—stateliness on a small scale; with wide side-walks, crescents and other devices of planning, and in a refined classic style of architecture which was all carried out about the same period and with a complete and homogeneous architectural character which is hardly to be found illustrated to the same extent anywhere else. It is a kind of Georgian shrine of a town, full of historic memories also; consecrated in literature, too: Jane Austen's heroines walked its streets, and the greatest living English poet has celebrated it in verse.

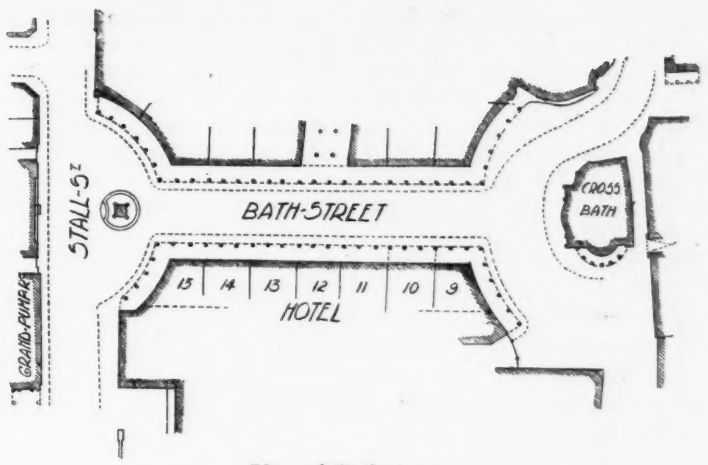
And now we hear with dismay that one of the most typical streets of the town—a character which its very name of "Bath-street" seems to imply—is threatened with architectural destruction for purely commercial reasons. Bath-street is a street of colonnaded loggias on each side, terminated with a crescent at each end; and at one end, on the central axis, stands the beautiful one-story building known as the "Cross Bath," seen in the left-hand foreground of the view. That the original founders of Bath-street regarded it as an important architectural feature of the City is evident from the inscription in

abbreviated Latin which was engraved on the first stone of the street when laid :—

PRO
VRBIS DIG : ET AMP :
HÆC PON : CVRAV :
SC :
DELEGATI.
A : D : MDCCXCI.
I : HORTON, PRAET :
T : BALDWIN, ARCHITECTO.

which may be read to the effect that "for the dignity and enlargement (of the City) the delegates I. Horton, Mayor, and T. Baldwin, architect, laid this (stone) A.D. 1791."

It is now proposed by Messrs. Waring, who have acquired the Grand Pump Room Hotel (the front of which is in Stall-street with one side to Bath-street), to remove the columns with the superstructure down the whole of one side of the street (that of which the commencement is seen in the centre of the view), and to set back the altered building to the wall line of the back of the colonnade, and then carry the building two or three stories higher. The plan shows the portion to be dealt with, on the side lettered "Hotel," except No. 10, which at present cannot be interfered with. The proposal means that one of the most beautiful and architecturally complete streets in Bath is to be practically destroyed; its symmetrical character altered, its axial line interfered with, and the charming effect of the colonnaded loggia on one side obliterated.



Plan of Bath-street.

That hotel-owners desiring increased accommodation should not stick at such an act of vandalism need, we suppose, surprise no one; but that the City Council, who ought to consider themselves the custodians of their beautiful city, should have entertained it, is matter both for astonishment and indignation. If this is permitted, it is pretty certain that it will only be a beginning, and that one of the most beautiful cities in the world will be eventually sacrificed to the greed of money. And even if this particular operation had no successor, and remained an isolated act of the kind, it would be bad enough, seeing that it involves the spoiling of one of the best streets in the town, and one of the most architecturally complete. We hope it is not too late for this mischief to be stopped.

Since the above was written, we learn from the *Bath Chronicle* of the 2nd inst.

The Cross Bath.

Commencement of Colonnade proposed to be destroyed.

Bath-street, Bath.

that the Town Council, in spite of a very influential deputation headed by the Rector of Bath, have officially approved of Messrs. Waring's scheme. They are not, however, likely to hear the last of it yet. In the meantime they have discredit of having, for purely commercial reasons, made the first move towards the destruction, architecturally, of the peculiar charm of their unique and beautiful city.

NOTES.

The Institute of Architects.

THE presentation of the Gold Medal to Dr. Arthur Evans was formally ratified at the business meeting on Monday evening, after some opposition from a member who appeared to be ignorant of Dr. Evans's important archæological work. Dr. Evans has fully as much claim to the honour of the medal as Schliemann, to whom it was presented; perhaps more, for his excavations and discoveries at Knossos are more remarkable in an architectural sense than Schliemann's, and have a more important bearing on the early history of Greek art, to which he has in fact added a new chapter. Mr. Gammell's proposal that the Council should take some decisive line in dealing with members who persist in entering into architectural competitions against the decision of the Council, we are quite in sympathy with in spirit; the action he complains of shows a lamentable want of *esprit de corps* and of respect for the representative body of the profession—a want of common sense, too, since every competition that is accepted on terms that are derogatory to the interests of architects as a body is an injury to the whole profession, including the competitors themselves. But we hardly see how the Council can penalise members who refuse to abide by its decision in these cases. The Council, after all, can only "advise" its members not to enter on a certain competition; those who choose to injure themselves and their brethren by accepting a competition on improper terms must be left, we fear, to the retribution of their own guilty consciences.

British and Foreign Granite.

MR. MCKENNA is having quite a lively time as the result of the preference given by the Admiralty for foreign granite. Last week no fewer than seven members bombarded him with a dozen or more questions. Briefly put, the position, as stated by Mr. McKenna, is that the Admiralty are quite satisfied with the quality of the granite obtainable from abroad, that the practice of which complaint is made has been followed for the last fifteen years, that, other things being equal, the Admiralty would prefer to deal with British or Irish quarries, that there is no foundation for the statement that native granite is superior to Norwegian stone. Further questions this week have brought out the facts that in the case of raw material supplied to the Admiralty from the United Kingdom the fair wages clause is enforced, and that the clause is not enforced in the case of raw material supplied from abroad to the Admiralty or to the War Office. That is "free-trade" of a most undesirable character, and as Mr. Redmond has promised to raise the question again on the vote we hope that members on both sides of the House will combine forces with the view of bringing about a more satisfactory state of things in connexion with future national contracts.

Hampstead Heath Protection Society.

THE twelfth annual general meeting of this Society was held on Wednesday at Stanfield House, High-street. The annual report detailed some of the cases in which the Society had intervened successfully in regard to proceedings which tended to injure the Heath. They have got the Whitestone Pond cleaned out and the mud removed, and they have persuaded the County Council to abandon the practice of spreading clay on the Heath to fill up rain tracks and hollows. Mr. John Burns had suggested to the Society that the ugliness of the Tube Railway Buildings at Golder's Green should be hidden by planting trees, and it appears that there is at all events an intention to attempt something of the kind. The protest made by the Society against the more noisy forms of entertainment recently introduced on the Heath on Bank holidays one can quite understand and sympathise with, but we doubt whether the County Council could intervene in such matters. Those are the kind of things which amuse a bank holiday crowd, however unattractive they may be to educated people; and the crowd has some claim to be amused in its own way. But the Society is doing most useful work in keeping an eye upon everything which is likely to injure the beauty of the Heath.

Architecture in Public Libraries.

THE Report of Mr. Henry Guppy, the Librarian of the Rylands Library at Manchester, after a number of donations to the library of works of artistic and literary interest, calls attention also to the catalogue of architectural works which the librarian and sub-librarian have edited for the joint architectural committee of the Manchester University and the Manchester Education Committee. We call attention to this, as it is unfortunately very unusual to find public library authorities taking any special interest in architectural books, still less making a special catalogue of them. We wish that other public libraries would follow this example.

A New Test for Concrete.

HOWEVER carefully an architect may specify the proportions of cement, sand, and aggregate, the resulting concrete will not be of good quality unless properly mixed. Hitherto there has been no reliable method of ascertaining during the conduct of building operations whether the process of mixing is or is not being performed in an efficient manner. The new test, described by Dr. Owens in the paper read to the Society of Engineers on Monday, is one of very simple character. It can be conducted in a few minutes, and the only apparatus required consists of two or three test glasses and a funnel fitted with a wire strainer. The new test was suggested to the author by the different rates of settlement in water of materials composed of different sized particles, and a series of experiments sufficed to demonstrate the practical value of the method for gauging the proportions of the constituent materials in mixed concrete. It was found that by shaking up a given volume of freshly-mixed concrete with water in a tall glass the cement, sand, and stone settled at different rates and formed three clearly defined layers, the height of which showed no change after ten or fifteen minutes. In order to obviate possible errors due to the varying size of stones in different samples Dr. Owens recommends the testing of mortar washed into the test glasses from samples by means of the strainer funnel. In this way the operator can ascertain after settlement has taken place the exact ratio of sand to cement in all the samples examined, inequality of the ratios pointing to incomplete mixing, and the equality of the ratios to complete mixing. This new test should be found of great value to architects and engineers, not only in determining whether concrete is being properly mixed or not in any particular case, but also in ascertaining the time necessary for the production of a perfect mixture in any type of concrete mixing apparatus.

High Electrical Pressures.

EIGHTEEN years ago it was considered a marvellous engineering feat to transmit power from Deptford to Trafalgar-square at a pressure of 10,000 volts, and this pressure was then considered to be about the maximum possible. Since then, however, the pressures have been steadily rising. In the New York *Electrical World* recently there appeared a description of the transmission line of the Grand Rapids Power Company. Nearly 14,000 horse-power is transmitted from the Grand Rapids to Michigan, a distance of fifty miles, at a pressure of 110,000 volts. The stresses on the insulators required for this line would be more than a hundred times greater than with the maximum pressures used for power transmission in London. Triangular steel towers are used to support the line at a height of 40 ft., and naturally, very effective methods are employed to make sure that the towers are always in excellent connexion with the earth. The line runs along the highways for the greater part of the route. When it passes through open country or forests strips of land varying in breadth from 33 to 66 ft. have been purchased and fenced off. When it crosses roads no guard wires are used. At this enormous pressure brush discharges are continually taking place from the line with a crackling noise. At night the wire is seen to be surrounded with a luminous corona. It is found by measurement that some forty horse-power is being continually dissipated by these discharges. It seems to us that it would be most instructive to make careful observations along the track of this line to see whether the enormous amount of ozone generated and the considerable electrostatic forces called into play have any appreciable effect on the animal and vegetable life in the neighbourhood. If fogs ever occur, also

interesting phenomena similar to those shown in several of Sir Oliver Lodge's experiments should be noticed.

Illuminants for Country Houses.

IN his third lecture on "Modern Methods of Artificial Illumination," delivered before the Royal Society of Arts on Monday last, Mr. Leon Gaster dealt with illuminants which are used principally in country houses. These included candles, oil lamps, air-gas, and acetylene. He showed some interesting diagrams to illustrate the decline in illuminating efficiency of petroleum (kerosene) which takes place as the oil level in the reservoir of an ordinary lamp recedes from the burner. The light obtained per unit of oil consumed was shown to be considerably greater when the reservoir of a lamp is nearly full than when it is less than half filled. Referring to the low-grade petrol air-gas produced by mixing 98½ volumes of air with 1½ volumes of petrol vapour, Mr. Gaster said it has been claimed that no condensation of petrol will occur in the distribution pipes even when the pipes are subjected to the lowest atmospheric temperatures; but he thought it would be found that when the air-gas is passed through very small pipes some petrol will condense at low temperatures. In his brief reference to acetylene he mentioned that 180,000 tons of calcium carbide are now manufactured annually, but of this only about 1,000 tons are made in Great Britain. Mr. Gaster's three lectures have been made interesting by demonstrations of a large number of the electric, gas, and oil lamps mentioned in his discourses, but the lecturer has not given much information concerning the comparative values of the different illuminants for practical lighting purposes.

Hogarth's House in Chiswick.

WE read that Colonel Shipway has offered to convey the house and garden to the Middlesex County Council in trust for the public. He bought the property for 1,500*l.* seven or eight years ago, when it was threatened with destruction, and having employed Mr. F. W. Pell to repair the fabric, opened the house as a museum of objects, amongst which are many very rare prints, associated with the works and life of Hogarth. Hogarth bought the house for his summer quarters in or about 1750, after he had returned from his visit to Calais; he left it to his widow, who demised it to her relative Mrs. Mary Lewis, with the remainder to some persons appointed by Mrs. Hogarth's will. The house, built in the early years of the XVIIIth century, is of red stock brick with rubbed brick dressings; on the first floor in the north front is a wooden bay or oriel window, and it has a boldly moulded wooden eaves-course; confer the drawings published in the *Builder* of February 8, 1890, and June 22, 1901. It is said that the two leaden urns on the gate-posts were given to Hogarth by Garrick; in 1814–26 the Rev. H. F. Cary, translator of Dante, occupied the house.

Dew-ponds.

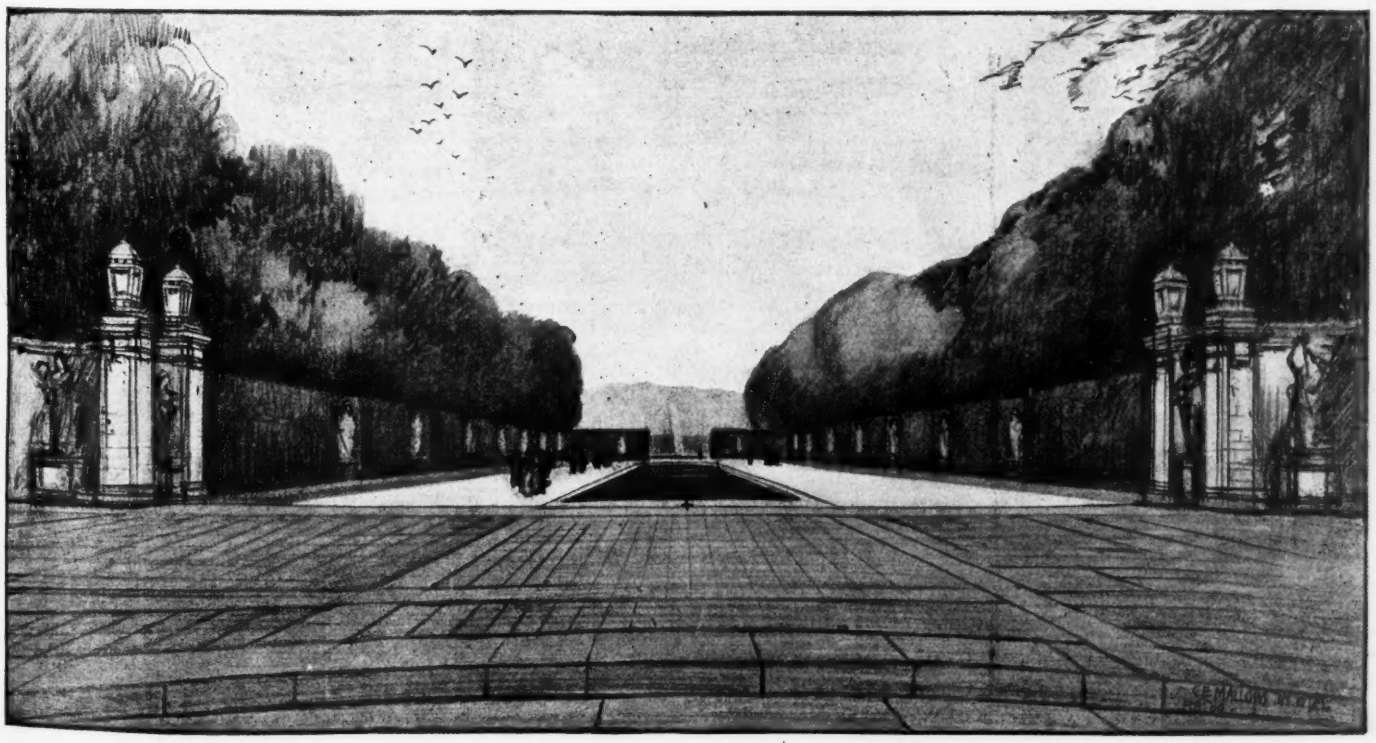
AT the Society of Arts, on Wednesday evening, Mr. George Hubbard read a very interesting paper on a subject about which there is not much general knowledge at present; the very name "dew-ponds" being a novel nomenclature to many. Mr. Hubbard went into the subject more from the scientific than the archæological side; describing the atmospheric circumstances under which dew was most freely deposited, and the required construction for a dew-pond to act efficiently: a thick layer of straw, as a non-conductor to keep out the earth's heat accumulated during the day; a layer of clay over this with a top-dressing of stones; the whole forming a chilled surface for condensing dew from the chilled air. This method of collecting water has been put in practice in one or two instances with success, quite recently; but the subject has its archæological interest in the existence of undoubted ancient dew-ponds at the top of rising ground, where no rain-water drainage could have formed a pond. It would be interesting to have a section cut into the bed of one of these ancient ponds, to see what was the real construction. We do not gather that there is at present any absolute proof that the ancient dew-ponds were constructed in this special manner. There seems to be little room for doubt, however, that some of the existing ponds in Surrey and elsewhere are of great age, and that those who originally made them were actuated by a kind of practical instinct which stood them instead of scientific knowledge.

PROPOSAL FOR LAYING OUT ST. JAMES'S PARK.

WE publish a plan showing the scheme proposed by Mr. F. W. Speaight for treating the Parade-ground and a part of St. James's Park in a symmetrical architectural manner.

Mr. Speaight's proposal for the treatment of the Marble Arch, in its original form, was not without merit in regard to architectural effect, though we did not agree that a monumental arch standing isolated in the middle of a semicircular space was a very logical architectural treatment. Putting logic aside, however, it would have looked well. Whatever merit it possessed originally, however, has been entirely destroyed by the Office of Works, where no one seems to have a sense of the problem of laying out roads on a truly architectural scheme; and the result is that the arch looks far more absurd and misplaced than it ever did before.

Mr. Speaight's idea for the treatment of the Parade-ground and St. James's Park, however, we can praise unreservedly as a very fine scheme, which would have a noble effect if properly carried out. The whole of that portion of St. James's Park, and the Parade-ground, is at present mere irregular ground without any plan or any leading idea in its laying out. Mr. Speaight's scheme is sufficiently explained by the plan, which we reproduce (page 270) on a reduced scale. The

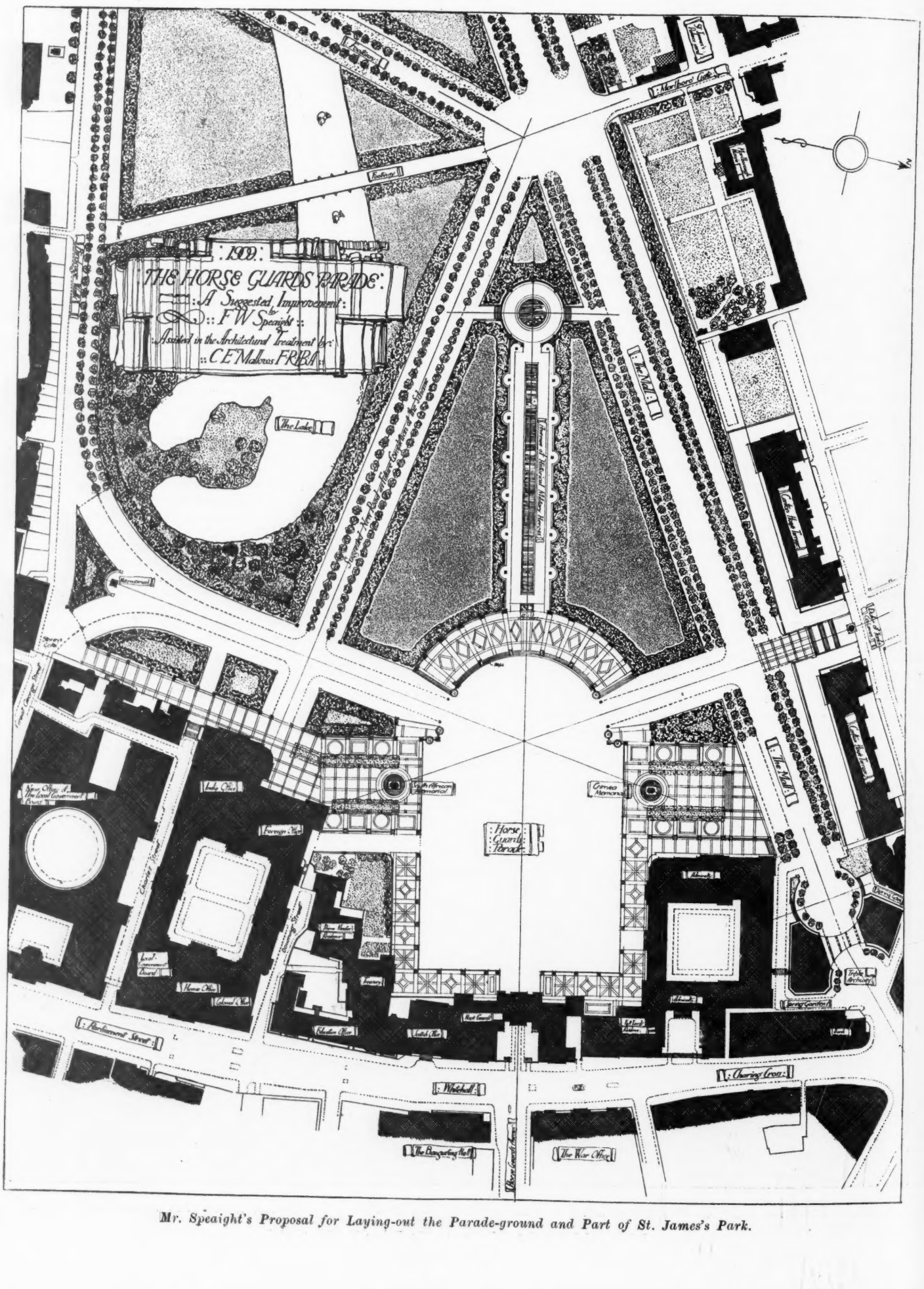


A View of the Canal Walk, on each side of which it is suggested statuary should be placed commemorating the more important Military Heroes in the Early History of England (see next page).

attention to centralisation and axial lines in it is quite in the right spirit, and in this respect we presume he has had important assistance from Mr. C. E. Mallows, who has made some beautiful drawings showing the intended effect of some of the vistas, one of which we reproduce (page 269).

Upon the general scheme we have no criticism to make; it is a very fine one and a great credit to its author, and we should be very glad to see it carried out. We object only to one detail—the proposal to drag the statue of Achilles from its modest retirement in its leafy corner in Hyde Park, and put it as a central object at the end of the proposed canal. In the first place, the statue was purposely placed near to and within sight from the windows of Apsley House, as being a monumental offering to the genius of Wellington; and to take it away from that position would be to break this association. Secondly, the statue is a rather commonplace piece of sculptural braggadocio, which is better left in its present comparatively retired position than brought out of it to act as a central ornament in a conspicuous position.

We fear we must also look doubtfully on Messrs. Leaning & Sons estimate of 58,750*l.*, for the total cost of carrying out the scheme. We are not given the details of their computation, but we do not think anyone who considers that plan and all the work it involves (and the estimate is to include the sculpture also), will feel very much faith in the idea that it can be carried out, as shown, for that comparatively modest sum.



Mr. Speaight's Proposal for Laying-out the Parade-ground and Part of St. James's Park.

SMOKE ABATEMENT EXHIBITION AT SHEFFIELD.

On Monday last a smoke abatement exhibition was opened in the Corn Exchange, Sheffield, by Sir Oliver Lodge. The exhibition has been promoted by the Sheffield Federated Health Association, a public-spirited body which has done good work in the past, and is now attempting one of the most difficult tasks connected with the health, cleanliness, and beauty of industrial towns—that of smoke abatement. It is encouraging to find that good citizens throughout the country are now convinced not only of the magnitude of the nuisance, but also of the possibility of abating it; but on this wider aspect of the question we shall have something to say next week. To-day we can deal only with the exhibition at Sheffield. While perhaps there is nothing of first-rate importance in it, the exhibition is undoubtedly interesting, and the conferences which are to be held in connexion with it will help to educate public opinion—a task which must be accomplished before much practical good can be done. There are about forty stands, and for convenience we will group the exhibits into three or four classes.

In an industrial town methods and appliances for reducing the smoke from factory chimneys are of the first importance. Among the exhibits of this class is a large model of Messrs. Babcock & Wilcox's well-known water-tube boiler, fitted with their patent mechanical chain-grate stoker "for burning low-grade fuel absolutely smokelessly." Mr. Herbert Bennett shows a model of the "Fumicide" smoke-consumer and fuel-economiser (Bennett & Broad's patent), the special feature of the apparatus being the method of introducing a current of superheated air at the bridge of the furnace. Messrs. Blackney & Oram (Buxton) exhibit a model of their steam-generator, and Mr. A. E. Blizzard (Congleton) and Messrs. G. Wooliscroft & Son (Hanley) show a model of their smoke-consumer and fuel-economiser, in which a current of hot air is supplied to give "complete combustion." A vertical multitubular boiler is shown by Messrs. Cochran & Co. (Annan). Messrs. James Hodgkinson (Salford) exhibit their "Automatic Smokeless and Gritless Coking Stoker" and air-tight damper, and the Incandescent Heat Company (Smethwick, Birmingham) show their patent apparatus for securing more perfect combustion in boilers and give records of excellent tests of the apparatus recorded by Professor F. W. Burstall, of Birmingham University. A smoke-condensing apparatus of a novel kind is shown by the Smoke Destroyer Company (Oxford), the object of which is to do away with funnels on ships and with factory chimneys on land; minute jets of water at high velocity are sprayed and induce a draught in the furnaces. The Stirling Boiler Company show a working model of a boiler which possesses some interesting features, and the Victoria Furnace Company (Selhurst) exhibit a smoke-preventing furnace, in which hot air and steam are injected to prevent smoke. The Victory Smoke Consumer and Fuel Economiser Company (Oldham) show a full-size apparatus for economising fuel and consuming smoke; air, heated in tubes placed in the flue behind the boiler, is forced into the furnace at the bridge. Patent overlapping firebars are shown by Messrs. Whitehead Brothers (Farsley), and a forced-draught furnace and underfed stoker by Mr. W. R. Wills (Sheffield)

Gas-engines are, of course, a smokeless method of power-production. A "National" gas-engine and a suction gas-producer are shown by Messrs. Thos. A. Ashton (Sheffield), a "Bates" gas-engine by the Sheffield Tool and Gas Engine Company, a vertical gas-engine and dynamo of their own manufacture by Messrs. Crossley Brothers (Manchester), and a "Stockport" gas-engine by Messrs. Roper & Wreaks (Sheffield).

Gas-stoves, fires, and cookers are exhibited by the Davis Gas Stove Company, the Richmond Gas Stove and Meter Company (Warrington), Messrs. Wilsons & Mathiesons (Armley), and Messrs. John Wright & Co. (Birmingham). Many of these are of well-known patterns, and we can mention those fittings only which are of special interest. The Davis Gas Stove Company show, among other things, their "New Davis" cooker, which is fitted together with interlocking plates and bolts; a number of "steamless" radiators, which are really bunsen-flame gas-stoves in the form of radiators, and without flues; the "Saxon" gas-fire, with hammered copper case; and the "Rapid" circulating boiler. The Richmond Gas Stove and Meter Company exhibit the "Humber" water-heater, which is made for connecting to the primary flow and return pipes between an ordinary range boiler and a cylinder and thus serves as a supplementary source of heat in winter, and may be used as the sole source when the range-fire is not burning; among the other exhibits of this firm are gas-heated muffle-furnaces and crucibles, and the "Quaker" grate for burning coke, one of the special features of this grate being the sliding wire-gauze blower. The "New Advance" cooker, exhibited by Messrs. Wilsons & Mathiesons, is raised on legs, and has a number of other useful features; the same firm show a water-heater for connecting to the primary flow and return pipes, as described above, a metal "regenerative reflector" for placing in front of gas-fires, and a locking tap and key by which the use of a gas-fire by an unauthorised person can be prevented. A high-pressure circulating gas-boiler, shown by Messrs. John Wright & Co., has a device for automatically controlling the supply of gas according to the temperature of the water; the same firm's "St. Andrew" gas-heated steam radiators are fitted with simple automatic gas-regulations of the diaphragm type, and mention must also be made of their brick-lined gas-ovens, designed to give the high temperatures required by confectioners, and of their "Bordo" cooking stoves, specially adapted for hotels and boarding houses.

Open fire-grates for burning ordinary coal are not shown in great numbers. Messrs. W. H. Micklethwait & Co. (Rotherham) exhibit two or three interiors without front bars, a cottage kitchen-range, and a combined gas and coal cooking range. A cast-iron fitting for placing in the back of an ordinary fire-grate for the purpose of saving fuel and consuming smoke is shown in operation by Mr. David Smith (Sheffield). An interesting fire-grate, exhibited by the firm trading under the curious name of "Smoke Consumption (Cowper-Coles Patents)," appears to have been designed to embody a principle advocated by Dr. Arnott many years ago in his well-known book on "Physics"—namely, that of feeding the fire from beneath (or rather from the lower part of the back) instead of piling the coal on the top; this is effected in an ingenious way, but the fire was not burning at the time of our visit, and, although we believe the principle to be sound, we should like to see the grate practically tested before giving a definite opinion as to its merits. Messrs. George Wright (Rotherham) have a good show of anthracite stoves, ventilating grates and stoves, and grates of more ordinary types. A somewhat novel grate, designed by Mr. T. Parker, is shown by the British Coalite Company; the special feature is a series of fire-bricks placed on edge about a foot above the fire, spaces being left between the bricks for the products of combustion to pass through to the flue; the bricks are said to assist combustion by radiating heat down into the fire.

Special fuels—chemically treated coke—are shown in use by the British Coalite Company in the grate described above, and in another grate and a kitchen range, and also by the company known as "Coalexed" (Lancaster). Another "smokeless fuel," known as "Osbornite," and manufactured from coal and peat, is exhibited by Smoke Consumption (Cowper-Coles Patents), but was not being burnt at the time of our visit. Fuels like these will probably be of great use in reducing the amount of smoke from domestic fires.

Electric-light fittings are exhibited by the Electric Supply Department of the Sheffield Corporation and by Messrs. Siemens Brothers & Co. (Sheffield). The latter company have a show-board comparing the light obtained from "Tantalum" and carbon lamps and the current consumed, and also exhibit a number of pyrometers, temperature indicators, etc. Arc lamps, dynamos, and motors are shown by the Union Electric Company. The only exhibit of gas-fittings is that by the Sheffield United Gaslight Company, the most interesting being the "pneumatic switches and distance lighters," an anti-vibration bracket fitted with an incandescent burner, and so arranged that it can be turned in any direction without injuring the mantle, and the Keith high-pressure lighting apparatus with rotary gas compressor.

Among the miscellaneous exhibits are Lovibond's colour-standards for water, smoke, fog, etc., shown by Tintometer (Salisbury); some chimney pots, by Messrs. John Gregson & Son and Mr. James Murphy (both of Sheffield); Talbot's patent air-purifier for systems of mechanical ventilation, exhibited by Messrs. Ibbotson Brothers & Co. (Sheffield); and electrically illuminated signs, by Messrs. Woollen & Co. (Sheffield).

The exhibition will remain open until March 20.

THE ARCHITECTURAL ASSOCIATION FOURTH SPRING VISIT:

NATIONAL SOCIETY'S TRAINING COLLEGE FOR GIRLS.

Members met on Saturday, February 27, at the National Society's Training College for Teachers of Domestic Subjects, in Fortune Green-road, West Hampstead, where Mr. H. W. Burrows, after a brief explanation of the scheme and its objects, conducted them over the building.

Messrs. Beazley & Burrows, in their design, have been breaking fresh ground, as this is stated to be the pioneer institution of its kind in this country. It certainly contains novel and interesting features, and a great deal of thought has evidently been devoted to its arrangement and working. Three main classes of student are instructed. Primarily, the college is intended to prepare teachers to impart instruction in the higher branches of domestic science at elementary and secondary schools throughout the kingdom. Advanced cooking instruction is also given to outside students not intending to follow the teaching profession, and London County Council scholars from the local schools are also taught domestic subjects, the college being officially recognised as the local centre for such instruction. Separate entrances are provided for each of these classes, although in each case the demonstration-rooms are also approached from the interior of the building, as the teachers under training are allowed to practise giving instruction to these outside students as a means of testing their capacity.

The ground floor of the building covers the major portion of the site. The principal entrance, in the centre of the main front to Fortune Green-road, leads directly to a quadrangular corridor, which is the keynote of the plan. To the right are the students' common-room and dining-room, and at the external angle the higher-class cookery demonstration-room for outside students. To the left are the office and waiting-room and (on the Hillfield-road front) the elementary cookery and laundry demonstration-rooms for London County Council scholars. The interior of the quad contains the laundry and drying yard, and at the rear are three practice kitchens for artisans', middle-class, and fancy cookery respectively. Stores and serveries are provided in conjunc-

tion with these, and a smaller house kitchen for the service of the college residents during recess. The main stairs adjoin the entrance, and supplemental stairs are provided at either end of the building in extensions of the quadrangular corridor.

At the first floor level the plan becomes an E-shaped one, with the back of the E towards the main front. On this floor are demonstration-rooms for advanced laundry work, a dressmaking-room, a chemical laboratory, lecture theatre, and housewifery flats and instruction-room for sundry duties in connexion with home management. There is also an examination-room for practical work. The top floor contains cubicles for thirty-five students, with three tutors' rooms. A separate house for the head mistress adjoins the college.

The number accommodated, if every classroom were fully occupied, would be about 300, but not more than 100 students will probably take the course at one time, as rotation of instruction would otherwise be difficult. The building is of fire-resisting construction, upon the ordinary steel joist and concrete system. Externally, the main fronts, of Georgian character, are faced with pressed red bricks sadly lacking in texture, with a heavy stone cornice above the first floor windows, the top story being treated as a rather ponderous attic—also in stone. The imposition of a heavy stone-fronted story upon a more or less open substructure of brickwork is rather contrary to one's preconceived notions of fitness and has a crushing effect.

A brief visit was also paid to the

London County Council Elementary School at New End, Hampstead.

Here Mr. Perry, the Assistant Architect for Education, kindly conducted the party over the building.

Owing to the restricted site, the desired accommodation could only be obtained by the erection of a four-storied building. Even so it has been found impossible to fully comply with the regulations as to playing areas, despite the erection of part of the school on open arches and the provision of an additional roof playground. Six hundred and tweve children are accommodated. The ground, first, and second floors each contain central hall, classrooms, cloaks, and teachers' rooms, and are respectively devoted to infants junior mixed and senior mixed. Separate entrances, staircases, and cloak-rooms for boys and girls are provided. The third floor contains art and science rooms common to junior and senior sections.

Vast differences in the level of the site and difficulties encountered with foundations, as well as the extreme height of the building, have caused the cost of the work to be very heavy, amounting in fact to over 35*l*. per head.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

A SPECIAL general meeting of this Institute was held on Monday, Mr. Ernest George, President, in the chair, when the Royal Gold Medallist for the current year was elected. The Chairman moved: "That, subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Arthur John Evans, M.A., D.Litt.Oxon., F.R.S." The motion was heartily agreed to.

The ninth general meeting (business) of the session was then held, when Mr. K. Gammell asked the following question: "Whether in view of the letter signed by Jos. Routledge on behalf of the Stanley Urban District Council, Durham, appearing in the *Builders' Journal* for February 10, any steps have been taken by the Council (other than by publication of the notice in No. 7 of the *Journal*) to induce the members referred to to observe the *esprit de corps* reasonably to be looked for from the members of this Institute; and, if not, whether steps will be taken to exercise a deterrent influence on members who enter competitions which are considered objectionable by the Council of this Institute."

In reply, the President stated that the Council deeply regretted the circumstances referred to by Mr. Gammell. The question had frequently been discussed by the Council, and it was thought that they ought to be able to trust to the right feeling of members. The Council, he understood, were not at liberty to put coercion on members.

Mr. Leonard Stokes added that the question was being considered by the By-laws Committee.

Election of Members.

An election of candidates for membership then took place, in accordance with the provisions of By-law 9. The following gentlemen were elected as Fellows:—T. N. Dinwiddy, London; W. R. Howell, Reading; R. Willock, London.

As Associates.

J. Allner, Blandford
H. J. Ash, P.A.S.I., Nuneaton
A. E. Beswick, Swindon
J. E. Bownass, Windermere
E. H. Buckingham, Norwich
F. T. Bush, London
E. S. Coldwell, Bloomsbury, W.C.
W. A. Daft, Oxford
P. Dalton, Ainsdale, near Southport
H. F. Davies, F.S.I., Chester
W. Dean, St. Leonards-on-Sea.
J. L. Denman, Brighton
R. C. Foster, Buckhurst Hill
H. French, London
A. Graham, Westminster, S.W.
C. Groves, Newcastle-on-Tyne
H. Healey, Rochdale
T. H. Hill, Manchester
T. S. Hosking, Llandrindod Wells
G. E. Hunter, Gosforth, Newcastle-on-Tyne
S. H. H. Ixer, Clapham Common, S.W.
H. G. Lay, Wellingboro'.
W. P. Major, Clifton, Bristol
S. W. Mobbs, Lowestoft
C. J. Mole, Plymouth
E. Morley, Bradford
S. A. Neave, Chatswood, Sydney, New South Wales
J. T. Penfold, London
F. J. Potter, Hampstead, N.W.
A. W. Ruddle, Peterborough
C. B. Smith, Ipswich
J. B. Surman, Birmingham
W. Sutcliffe, Todmorden
B. H. Sutton, Reading
F. Sykes, Manchester
W. J. M. Thomasson, Bournemouth
R. J. Tyndall, Maida Vale, W.
R. N. Vanes, Acton Vale, W.
J. H. Vaughan, Newport, Mon.
F. D. Ward, Hastings
H. G. Warren, London
T. H. Whittaker, West Bridgford, Nottingham
W. H. Wilson, Sydney, New South Wales
E. M. Wood, Cardiff

As Hon. Corresponding Members.—A. Delpy, Lauréat de l'Académie des Beaux-Arts de Bruxelles, Brussels; C. L. Girault, Government Architect, Membre de l'Institut de France, Officier de la Légion d'Honneur, Paris.

BRASENOSE COLLEGE, OXFORD: QUATERCENTENARY CELEBRATION.

IN the course of next summer will be celebrated the quatercentenary of the foundation by William Smyth, Bishop of Lincoln, and Sir Richard Sutton, of Prestbury, Cheshire, of the King's Hall and College, now Brasenose, in 1509—12. The proceedings will begin on Whitsun Monday, June 1 (on which date was laid the first foundation stone in 1509) with the laying of the foundation stone of the buildings which will complete the new block, designed by Mr. T. G. Jackson, R.A. The original founders obtained from Oriel and University Colleges respectively, leases of Salisbury and St. Mary's Entry Hostels, and of the XIIIth century Brasenose and Little University Halls. The site also included those of the Staple, Black, Haberdashers, and Little Edmund Halls; together with that, reputedly, of the *brasinium* or brasen-huis (brew-house or brasserie) appertaining to King Alfred's palace. Polydore Vergil, though one would hardly take his authority if unsupported, refers to the nose thus:—

"Per id quoque tempus Gulielmus Smyth, Episcopus Lincolniensis, Margaritae exemplo ductus, Oxonii scholasticorum collegium collocavit in aula quam vulgo vocant Brasyn Nose, hoc est aeneum nasum, quod eo loco imago aeuea facie admodum immani pro foribus extet. [Lib. xxvi. Edit. 1651.]"

The reference by Vergil is to the foundation by the Lady Margaret, Countess of Richmond and Derby, of Christ's and St. John's at Cambridge, in 1505-11.

An inquisition of 1278, cited in Ingram's "Memorials of Oxford," and quoted by Anthony à Wood, mentions Brasen Nose Hall. The name is traced, farther back, to Henry III.'s day. A metal nose over the college gate opposite the Radcliffe has been a familiar relic to our own time. In October, 1890, the college authorities gave welcome, with much ceremonial, to the arrival of the brazen nose from Stamford, Lincolnshire. A. à Wood says that it consisted of a face or head of old cast brass, having a ring through the nose, affixed to the wicket of the great gate of a building in Stamford which in leases and deeds was denominated "Brasen Nose." There seems still to be some doubt whether the nose was taken thither at the time, 1334, of the secession of students from Brasenose, Oxford, or whether they, finding it there, adopted the sign for their own name and style. At the end of the XIIIth century Stamford *Studium Generale*, or University—whilst not being a *Universitas* in the generally accepted meaning of the word—comprised many colleges and halls. There were, for instance, the Carmelite College of Henry de Hanna, the second provincial in England; Robert Luttrell's Sempringham Hall, founded 1292, for Gilbertine students, and named after the birthplace of the founder of that monastical order; the St. Leonard's Priory, attached to Durham; Vauldrey Hall for students from the Cistercian Abbey of Vauldrey (*de Valle Dei*) near Grimsthorpe; Black Hall; Peterborough Hall; and Brasenose College. A royal edict of 1335 suppressed Stamford University; St. Leonard's Priory, and the gate, in part, of Brasenose in St. Paul's-street, have, however, survived to our time.

Of the Oxford College buildings the library (1663) and the chapel (1668), standing in what is now the middle quadrangle, and both being in what may be termed a Gothico-classic style, are ascribed to Wren. The fan traceried vaulted ceiling of the chapel was taken, it is said, from the chapel in New Inn Hall-street, of St. Mary's College. The old gate-tower, completed in 1520, gives access into the quadrangle whereof the upper story was added in the earlier years of the XVIIth century. Mr. Jackson's additions, designed after the late Gothic, or Collegiate Gothic and many-gabled manner, are illustrated, together with block plans, in the *Builder* of June 4, 1887, August 4, 1888, and June 7, 1890. They form the new, and larger, quadrangle which has taken the site of tenements in Amsterdam Court, so named from the ancient Amsterdam or Broad-gates Hall, of some timber and plaster buildings occupied by undergraduate members of the college, and, we gather, of the college brew-house. The west wing, extending northwards towards the grounds of Lincoln College, and the short return wing at its north end, were erected in 1882-7, for twenty-two sets of rooms, a fellow's set, two large lecture rooms, a common room, somewhat similar to the "Tribunal" at Glastonbury, and kitchen offices. The south side, facing the High-street, occupies what is, in one sense, a position of difficulty, between the church of St. Mary the Virgin and Dean Aldrich's early XVIIIth century church of All Saints, and has a façade with modified XVth century Perpendicular details. The buildings are planned for the principal's house and rooms for fellows and undergraduates, with a muniment room in the upper story of the entrance gate tower, which has a Tudor archway. In our issue of August 16, 1890, we reproduced J. Fulleylove's drawing of All Saints with the Mitre Hotel and the old houses supplanted by the extension of Brasenose.

CHURCH RESTORATION, KENCHESTER. — The ancient parish church at Kenchester has again undergone renovation and restoration. The contract for the general work was entrusted to Messrs. Beavan & Hodges, of Hereford. The nave benches were made by Mr. Dredge, of Hereford, and the heating, which is on the medium high-pressure plan, was carried out by Messrs. R. Renton Gibbs & Co., of Liverpool. The whole work is from the designs and under the superintendence of Messrs. Nicholson & Hartree, architects and surveyors, Hereford.

TESTS OF REINFORCED BRICKWORK.

TWO TESTS of brick walls reinforced in accordance with the H.B. system were recently conducted in Liverpool by Messrs. Richard Johnson, Clapham, & Morris. One wall, 15 ft. long by 3 ft. high, consisted of a 4½-in. panel, a cavity of 1½ in., and a 3-in. panel, making a 9-in. wall, supported on piers 10 ft. apart, one end projecting as a cantilever 5 ft. long. The lower surface of the wall was 3 ft. above the ground, and at the time of testing its age was thirty-five days. When the load of 1,000 lb. per foot run had been placed upon both portions of the wall, no deflection was observed after the lapse of twelve hours. The load on the supported part was concentrated at three points, and that on the cantilever was concentrated at five points. It was then decided to test the cantilever to destruction without increasing the load on the span supported at both ends. At the load of 1,650 lb. per foot run no deflection of the cantilever was observed. The load was then increased to 2,125 lb. per foot run, when the cantilever broke suddenly without having shown any tendency to crack or deflect. Examination of the fracture showed that some of the bricks had failed by shear and others had broken away at the joint. The other wall, measuring 3 ft. long by 2 ft. wide by 4½ in. thick, was tested as a slab after nineteen clear days had been allowed for the mortar to set, the clear span being 2 ft. 6 in. between supports. When the distributed load of 850 lb. per sq. ft. had been imposed a fine shear crack was observed at one side of the slab. Increase of the load to 1,120 lb. per sq. ft. caused an entire brick to fall from the other side of the slab, and further increase of the load to nearly 1,490 lb. per sq. ft. resulted in failure, the slab cracking straight across.

In both walls common red bricks were used, these being set in 1 : 3 cement mortar, and the joints were reinforced by H.B. network carried through the entire length of the wall and supporting piers. It should be noted that no ties of any kind were placed between the two panels of the hollow wall.

These tests demonstrate conclusively the advantages secured by the application of tension reinforcement to brick masonry.

THE LONDON MASTER BUILDERS' ASSOCIATION.

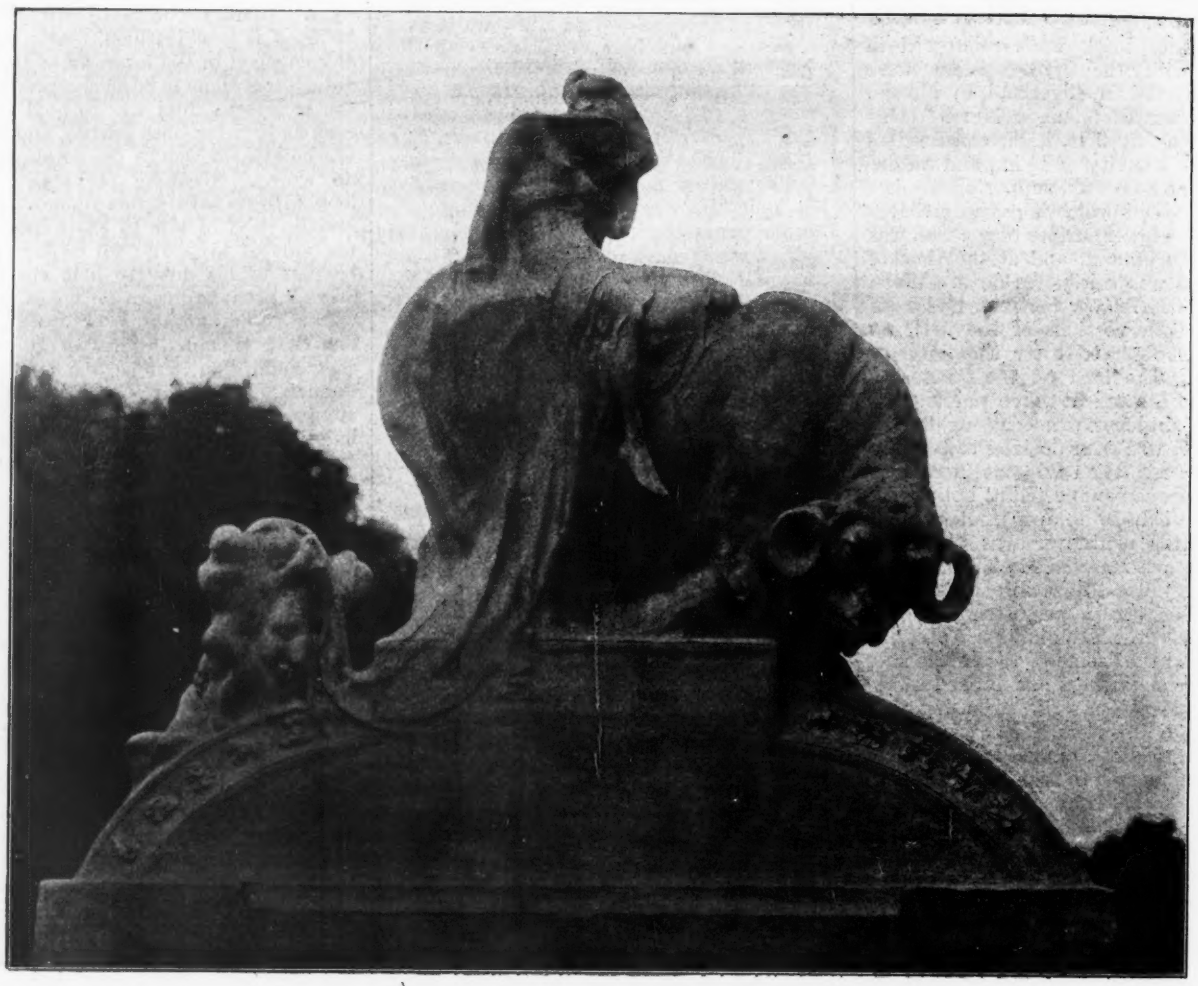
THE annual dinner of this Association was held on Wednesday last week at De Keyser's Royal Hotel, Victoria-embankment, E.C., when the President, Mr. Wm. Lawrance, took the chair. There were also present—Messrs. E. J. Brown, President of the National Federation; Walter Cave, President of the Architectural Association; J. Carmichael, J.P., President of the Institute of Builders; G. L. Gomme, Clerk, London County Council; A. E. Harris, J.P., F.S.I., President of the Quantity Surveyors' Association; and Messrs.

H. Arthur Bartlett
A. E. Brown
F. Bonsor
H. Burbidge
A. W. Blackburn
C. E. Blomfield
J. C. Broad
C. B. Broad
C. Bean
R. E. Bartlett
H. T. Chidgey
B. Carter
J. W. Chessum
R. B. Chessum
S. Constanduros
T. Cortigan (Secretary)
F. L. Dove, L.C.C.
T. D. Dangerfield
A. Dixon
G. Dean
A. W. Durrant
S. B. Depree
A. B. Falkner
B. F. Fletcher
F. W. Foster
W. Godson
C. Gregory
B. J. Grover
D. Gardener
R. Griggs
J. Hill
P. Hastings
G. S. Harrison
L. Horner
J. S. Holliday
R. J. Holliday
W. Hammond
E. J. Hill
W. Matthew Hill
H. W. Horner
Stuart Hill
J. W. Jerram
H. I. Jerram
S. Jupp
A. C. W. Johnson
G. Thrale Jell
J. J. Joass
G. R. Julian
J. A. Keynes
C. O. King
J. W. King
W. B. Lawrance
H. G. Leslie
P. Lawrance
A. Lamley
Walter Lawrance
W. G. Lambeth
W. Lawrence, jun.
H. F. Langher
J. MacAlister
R. Moreland
F. G. Minter
A. Monk
E. C. S. Monson
H. Monk
F. Messum
H. J. May
W. Needham
G. Neal
H. Neal
J. G. Oatley
H. W. Porter
J. F. Parker
C. R. Parker
G. H. Parker
A. E. Pridmore
J. Pearson
F. A. Powell
E. T. Pellett
F. Ruddle
F. G. Rice
G. A. G. Robertson
J. Randall
E. H. Renton
A. Rice
L. Randall
R. M. Roe
C. E. Roberts
W. Sheppard
John W. Simpson
W. Spooner
L. Soloman
A. J. Stokes
H. P. Shepherd
A. Smith
H. Smith
F. W. Smith
H. C. Smart
A. W. Turnbull
A. H. R. Tenison
E. G. Veritz
A. G. White
W. F. Wallis
W. J. Walford
B. C. Watton
F. Wall
H. Wall
H. T. Walker
S. Wright and
A. E. Wright.

The loyal toasts having been proposed by the Chairman, and duly honoured,

Mr. J. Carmichael, J.P., President of the Institute of Builders, proposed the toast of the "Architects and Surveyors." He said the toast was a comprehensive and important one, and it embraced many of the most talented men of our time of strong individuality and character, who were doing their utmost to leave the world more beautiful than they found it by the work they did. The toast was an important one when one took into consideration the high standard of efficiency that the two professions had attained to. After twenty-five years' experience of many of the leading architects and surveyors of London he had formed the highest opinion of them as to their ability and integrity, and when their genius and ability and integrity were helped by the intelligence of capable builders they obtained results which could not be surpassed in any civilised country. At a dinner some years ago a friend suggested that he should say, in proposing the same toast, that the architect was the man who drew the plans so that neither the builders' foreman nor the clerk of works could understand them, and that the quantity surveyor was the man who made out the bill of quantities so that neither the architect nor the building owner could understand them. Of course, there was a great deal of sarcasm in that, and he could not help thinking that, taking into consideration the complicated drawings and bills that one saw, he was justified in referring to the high standard of efficiency that the two professions had attained to. The duties of the architects of to-day were much more difficult than ever they had been; not only must he be an architect in the ordinary acceptation of the term, but he must have a knowledge of so many other subjects as well; his client asked his advice on the value of land on which he desired to place his building, and on the financing of it even; and as the building progressed the architect was asked about the electricity, the lighting, the hydraulics and engineering, and other subjects relating to building. What the architect did not know the quantity surveyor did, and the surveyors were a very great help and comfort to builders.

Mr. John W. Simpson, Vice-President of the Royal Institute of British Architects, who responded for the architects, said that in the unavoidable absence of Mr. Ernest George, the President of the Institute, he had been asked to respond and to thank the proposer for the kind things he had said about architects. He could only confess that though it was doubtless true that they did not deserve them there was no doubt whatever that they ought to do so. For an exasperating quality of their profession was that, however high the standard of their attainments and of their practice, it must still fall far short of what it might and should be. It was the chief pride of the Royal Institute of British Architects constantly to advance that standard and to stimulate its members to conform thereto. It was very pleasant to be able to congratulate themselves upon the cordial relations which exist between the creative and the executive departments of building. He confessed to some pride when he thought of the absolute confidence which was placed in architects by both the parties to a building contract; for he honestly believed it was justified. Although nominally engaged in the interests of the employer only, it had come to be an accepted axiom that the architect's duty was to hold the balance even as between both parties, and to see that the builder, as well as the employer, suffered no wrong. Speaking personally, he could look with no satisfaction upon a work which had resulted in loss to the builder through no fault of his own; for he conceived it to be part of his duty to help the builder to make a profit in return for honestly executed work. And, speaking of work, reminded him that, though trade was not so good as they could wish it to be, the London County Council had under consideration at this moment a Bill which seriously affected the building trade. It was extraordinary that the tendency of every official department was to straddle out and try incessantly to obtain more power and more work, though it might have already more than it could do. They would think the Building Act of 1905 had filled the mouths of the Building Act Committee of the London County Council and its officials for some time to come; they could not possibly digest it. But, not a bit! They wanted to have still more stringent powers, and were pushing their new Bill in the face of the expert opinion of architects, builders, district surveyors, and engineers alike. These harassing and constantly-increasing restrictions and vexatious regulations were acting most injuriously in restraint of trade. It behoved them all to resist further encroachments upon their liberty. The Royal Institute of British Architects was fighting tooth and nail to obtain more moderate provisions in the new Bill, and he hoped they would have the active support and assistance of every master builder in their efforts. The whole system of building regulation in London was, in his opinion, founded upon a basis of fallacy. Notwithstanding the continuous advance of scientific method and the perpetual changes in material and its application which resulted therefrom, a vain attempt was made to formulate hard-and-fast rules for everything which could be done in the way of building construction. Naturally such rules were out of date almost as soon as they were passed. If, on the other hand, the Building Act were remodelled on the simple principle of indicating what might *not* be done, it might easily be made an instrument of the greatest practical value. As it was, the original idea on which it was founded, the prevention of the spread of fire, had long been lost sight of in a maze of complicated and contradictory verbiage, which not even those charged with its administration could interpret consistently. It had become an annoyance and a mere means of harassing those who were honestly endeavouring to construct buildings in the best possible way. Every man in that room could give off-hand a dozen instances in which he had been compelled, against his experience and better judgment, to comply with requirements which he knew to be fatuous to the verge of imbecility. Let him not be misunderstood; he was making no complaint of district surveyors or other officials. Many of them were his personal friends, and for all of them he had the highest respect; but he attacked the Building Act and all its off-shoots as a bundle of anachronistic absurdities. He ventured, some little time since, in the columns of the *Times*, to suggest a remedy in the shape of a "Court of Building" for London, before which, presided over by a competent judge, all plans should be brought and *settled*—whether as to construction, light and air claims, or what not—once and for all before building was begun. This system had long been in force in Scotland, and he believed that in it would be found an effective specific for the intolerable conditions under which we in London laboured. He wished the remedy for the evil he had ventured to speak about were readily attainable and satisfactory. After all, long before they were thought of,



"Night": Prize Design for Decoration of the Pappelplatz, Berlin. By Herr H. Hosäus.
(From the *Berliner-Architekturwelt.*)

Solomon had summed up the whole art of building when he said:

> "Through wisdom is an house builded;
> And by understanding it is established."

Mr. A. E. Harris, J.P., President of the Quantity Surveyors' Association, who responded for the surveyors, said he could not help thinking that architects might draw and design, and quantity surveyors might measure, etc., but where would they be without builders? It was a source of satisfaction that the relations between builders and surveyors were so cordial, for there were very few instances of strained relations between them, and he thought that that was testimony as to the fairness and impartiality of surveyors. In most large works the surveyor was appointed without any reference whatever to the builders, but in the old days that was not so, and on many important occasions builders had a voice in the selection of surveyors, meeting together to choose a surveyor who should represent them. Why that custom had fallen into disuse he knew not, but he ventured to draw from the fact the conclusion that it was a testimony to the fairness and impartiality of surveyors as a body. The Association which he represented was a very young body, but it had a very laudable object in view, *i.e.*, not only to educate the young surveyor, but to raise the status of the surveyor and improve the basis on which builders' contracts were founded by raising the profession as near as it was possible to an exact science—to eliminate all sporting items, so that, so far as it was possible for human endeavour to make it, the bill of quantities should represent the actual work which would be put down in the building. He was sure that their objects in this direction would always meet, as they had done in the past, with the cordial goodwill of the London Master Builders' Association. He had read the handbook issued by the Master Builders' Association, and he found it an exceedingly interesting work, especially the historical record of the Association; and he had been much impressed by the warfare and turmoil and trouble through which they had been in the past. The Association had some very able men then, as it had now.

Mr. Walter Cave then proposed the toast of "The London Master Builders' Association and its President." He said it was not known to everybody how much really good and useful work had been done in the past and was still being done by the Association. It was thirty-seven years old, and he might remind those who did not know that it was brought into existence by the strikes amongst the workingmen in the year 1872, when it became necessary for the employers of labour to combine against the powerful combination amongst all trades connected with building. The attitude which was taken up from the very beginning by the Association had, he was glad to say, been maintained, and their policy had never been aggressive; and their principal aim and object had been to find some means of establishing a better understanding between the masters and men, so as to avoid the disastrous strikes, which had been not only productive of great money losses to all parties concerned, but, what was of greater importance, the loss of a good feeling and proper understanding between the two sides. The formation of the Conciliation Board had met with considerable success, and he thought the fact that there had only been one case brought before it in the past year showed that the objects of the Association had been to a large extent attained. There was one point which he must mention, and that was the passing of the Eight Hours Bill, which at present referred to certain mining districts. In connexion with this he should like to quote the words of their distinguished past-President, the late Colonel Stanley G. Bird, who gave so much of his time and energy to this end:—

> "To shorten hours—in other words, to reduce the output, to curtail a man's energies and powers of production—is a very serious thing; it means a wanton national loss. I consider that the country and humanity has a right to the fullest power and energy of either mind or body that every individual can supply. No man or woman should waste that which God has given them."

Those words seemed to him to express the feelings of a great many people, and he could only say that it was to be hoped that there would be no extension of this Act to other callings. With the toast he coupled the name of the President, Mr. Lawrance, and wished them all success in the future and a long life to enable the Association to carry out its policy, with which all those who are connected with the building trade must have every sympathy.

The President, in the course of his reply, said, with regard to the proposed legislation of the London County Council in the matter of its General Powers Bill, the Association had been represented at several conferences with the Institute of Architects and other institutions, and they had been ably represented by their friend, Mr. J. Carmichael, the President of the Institute of Builders. As to trade, it was in a very depressed condition, and they were all hoping for better times. The relations of the masters with the men had been friendly during the past year, possibly because of the depressed state of trade, though not wholly for that reason, because one of the objects of the Association was to strengthen cordial relations with the men, and one of the great means to this end had been the establishment of the Conciliation Board. The Association had been able to assert and maintain the principle for which they existed, *i.e.*, the right to carry on their business in their own way. The Association was not aggressive; their principle was defence, not defiance, and they sought to maintain honourable and satisfactory relations with the men. In that respect the Master Builders' Association stood for absolute integrity. Having made proper and intelligible arrangements with the men, they tried to carry them out. As to Parliamentary measures, it was a matter of common knowledge that very great influence was brought to bear on members of Parliament in the

"Day": Prize Design for Decoration of the Pappelplatz, Berlin. By Herr H. Hosäus.
(From the *Berliner-Architekturwelt.*)

matter of labour organisations; and it had been the business of the Parliamentary Committee, not only of the Association, but also of the National Federation, carefully to watch all these measures proposed and passed, and to endeavour in every way to safeguard the interests of the builders of London and England, and they were indebted to those who had given many days of hard work on those Committees in defence of the rights of the builders of London and the country. On the occasion of the annual dinner last year, the Chairman gave an optimistic report as to the new premises proposed to be taken by the Association. Unfortunately the forecast then made had not been fulfilled, and the Association was still accommodated at Bedford-street, W.C., where they had been for many years. The negotiations for premises in Kingsway proved abortive, and, though attempts had been made to secure other premises, nothing definite had been accomplished. He appealed to all in the trade to support the Association, for it had done good work, and now was the time for them to assert the principle that union is strength. Let them work together so as to prepare for fight if necessary, and to fight with strength. In conclusion, the President referred to the valuable services rendered to the Association by their energetic and hard-working Secretary, Mr. Costigan, who had their sympathy in his recent sad bereavement and ill-health.

The concluding toast was "Our Guests," which was proposed by Mr. E. J. Brown, President of the National Federation, and responded to by Mr. G. L. Gomme, Clerk to the London County Council.

Mr. Brown said that their guests, in one way or another, helped them to carry on the great business and trade of the country.

Mr. Gomme, in reply, remarked that he had read of a Building Act which was passed in the reign of King Stephen, and a remarkable document it was, and under that Act builders were not allowed to do all sorts of things which were permitted now. Because Bills were introduced and passed at the present time for the purpose of regulating building work he ventured to say that that was not aimed at builders like members of that Association, but so as to deal with those who did not come up to the standard that was set; and in a spirit of all kindliness he said London was being rebuilt gradually, and they wanted the rebuilding to be permanent and an example to the rest of the country, both for its building and its planning. He was ambitious for the good of London, and he could not help thinking that if the Master Builders' Association and the architectural profession would assist the London County Council in bringing about necessary revision in the law that was required, so as to strengthen the weakest links in the chain, they would produce in the near future a London of which they would all be proud.

The proceedings then terminated.

DESIGNS FOR DECORATION OF THE PAPPELPLATZ, BERLIN.

THE illustrations on this and the opposite page represent the first premiated designs in a competition for decorative groups of sculpture for the Pappelplatz, Berlin.

They represent "Day" and "Night," and are the design of Herr Hosäus, of Grunewald, Berlin; whether they are to be carried out or not we are not aware.

There is a grand monumental style in the designs, and the breadth of effect produced by the mass of drapery over part of each group is a notable point in sculpturesque effect.

A MEMORIAL TO CORNISHMEN, TRURO CATHEDRAL.—It is proposed to erect in the cathedral a memorial to three distinguished natives of the county—Lord Godolphin, Sir John Eliot, and Sir William Molesworth. The memorial will be designed by Mr. F. Pearson, consulting architect to the cathedral, and Mr. Frith will execute the sculpture.

THE TECHNOLOGY OF DECORATIVE AND PROTECTIVE PAINTS.

ON this subject two lectures were given, on January 25 and February 1, by Mr. J. Cruickshank Smith, to the Architectural School of the Polytechnic, Regent-street. The following summary of them has been furnished by the lecturer:—

"No words of mine are necessary to impress upon you the importance of paint from the standpoint of the architect and the property-owner. It is obviously to the interest of the property-owner that his property should be protected in an efficient and tasteful manner from the various destructive influences to which it is exposed, and it is plainly the business of his professional adviser, the architect, to be in a position to advise his client in the best manner as to the proper materials to use under given conditions.

A distinction is to be drawn between decorative and protective paints. The latter class being used with the special object of protecting the surfaces on which they are applied they have to be manufactured with the greatest care, and the choice of materials used in them is more limited than is the case when merely decorative paints are in question.

The Component Parts of Paints.

Speaking in the most general terms, paint consists of two portions, a solid portion and a liquid portion. Each of these component parts is of great and equal importance, and they must be considered together, as the finished paint owes its properties to the suitable adjustment of the solid and liquid portions. Linseed oil is looked upon as the base of the liquid portion of paints, and I would impress upon you the great variations that are liable to exist in this material. The samples of various linseed oils which I have here are sufficient indication that the term linseed oil by no means carries with it any definite guarantee as to composition except that the material so described is understood

D.

to be the unadulterated product of the seed of the flax plant. The great fault with much of the linseed oil used by painters is that it is far too new. If you compare this sample of freshly-expressed linseed oil with this sample which has been in my possession for five years, you will at once see the enormous difference between a new oil and a well-matured or tanked oil.

The pigmentary part of paints is now engaging the attention of scientific men in connexion with the paint industry, and one point that has been thoroughly well proved is that the more finely ground a pigment is the better it will be for paint purposes. This consideration has induced paint manufacturers to devote much thought to the improvement of their paint machinery, and in the lantern slides which I am about to show you, you will be struck with the extremely workmanlike and efficient nature of the various machines and pieces of plant which now form part of the stock-in-trade of every well-equipped paint-maker. (Lantern slides of typical paint machinery were shown.)

In order to appreciate the technology of paints it is well for us to fix our attention in the first instance on the pigment itself. (Lantern slides of micro-photographs of a number of the leading paint pigments were shown.) The characteristics looked for in a satisfactory paint pigment are opacity, absence of crystalline structure, chemical inertness, fine state of division, insolubility, and the property of amalgamating readily with the vehicle. It is now understood that the causes and conditions which go to the making of a successful paint are not only chemical but physical; that is to say, it is not merely the chemical composition of the paint that determines its value, but also its physical and mechanical properties, these being due in great measure to the physical properties of the pigment contained in the paint.

Theoretically a film of protective paint should consist of a number of closely-packed small spheres of equal size, in perfect equilibrium chemically and physically, embedded in a permanent cementing medium. This theoretical state of things has not yet been reached in practice. All that we can do is to endeavour to approach it as nearly as possible. The opacity of a paint depends both on the pigment and on the medium, and the opacity of certain pigments varies considerably according to the medium in which they are placed. Thus, for example, ordinary whiting possesses a high opacity when suspended in a medium consisting of size and water, but a low opacity when suspended in linseed oil. White lead has a much higher opacity in turpentine than it has in linseed oil.

Destruction of paint films may be due to internal chemical action between the particles causing a change of bulk in the individual particles, and thereby setting up strains and stresses inside the paint film. It is also due to internal changes caused by physical forces between the vehicle and the pigment causing rearrangement of the particles. It may be due also to chemical decomposition of the pigment from outside sources, such as sulphurous gases in the air, etc. Destruction is also caused by chemical decomposition of the vehicle, whereby the latter becomes saponified or hydrolysed. Again, destruction may arise from moisture affecting the ground, the chief effect of the latter being rusting if the ground is iron or steel. So far as protective paints on iron are concerned, rusting is by far the most important cause of destruction, partly because it is so difficult to prevent it. The prime cause of rusting is moisture, and there are three sources from which this moisture may arise.

(1) It may be in the ground itself, iron being porous and absorptive of air and vapour.
(2) It may exist in the paint.
(3) It may come through the paint; and it has been proved that no paint film of which linseed oil is one of the chief constituents can be made thoroughly impervious to moisture.

The causes of the discoloration of paint are numerous, and a paint may become discoloured without being absolutely destroyed. In the case of white paints discoloration is frequently due to the linseed oil which they contain. Linseed oil always causes yellowness in paints. It is found that such discoloration is more apparent in cases where the paint has not been exposed to light."

The final lecture was devoted to a consideration of zinc paints, the lecturer describing in detail the leading classes of such paints, and showing practical examples of work done with them. He also indicated the respective properties and merits of oxide of zinc and sulphide zinc white, concluding by giving suggestions as to the mixing and application of these materials.

THE CARPENTERS' COMPANY LECTURES:

IDEAS IN THINGS.

IN continuation of the series of thirteen lectures on arts connected with building, arranged by the Carpenters' Company, the first of the lectures on design as applied to completed work was delivered on Wednesday last week in Carpenters' Hall, London-wall, E.C., by Mr. C. F. A. Voysey, whose subject was "Ideas in Things." Mr. Maurice H. Pocock, Master of the Company, presided.

Mr. Voysey, whose remarks were illustrated by lantern views, said they should carry in their minds the firm conviction that no honest effort was without good fruit, though our accomplishment might be frustrated. The age we live in was intensely material; it had witnessed a mighty development in material things. It was lamentable when men's minds were so absorbed by material conditions that they lost all sensibility to the higher forms of usefulness and happiness. Materialism alone was a demon of unrighteousness. We were content to be pleased with anything, without asking ourselves why, and things said to be charming were often accepted without question. Not for one moment would he belittle the importance of all material and bodily conditions; but in the cause of art and the higher qualities of man we must pay more regard to the spirit, and less to the flesh, without which spiritual basis no art was worth having at all.

The presence of so much ugliness in our life to-day was largely due to our materialistic habit of mind. We love ease far more than beauty, utility far more than inspiration; and, consequently, ideas in things were not readily recognised. All art was the expression or manifestation of thought and feeling; therefore a technical knowledge of any craft by itself was but a language with which to express thought and feeling. We might make doors and windows, chairs and tables with mechanical exactness, and be paid in coin in exchange, but neither we nor those who paid for it would gain any spiritual benefit from our labour unless we had put our hearts and minds into our work, anxiously seeking to impart some good thought and healthy feeling. Whether or not the workman be seeking to gain praise for himself or express praise of lovely qualities would make all the difference to his influence through his productions; it would be vain and frivolous, or dignified, simple, and restrained. A thousand subtle feelings might be suggested by it according to the earnestness and purity of the man. It was base materialism to shut our eyes to the spiritual character given by man to matter. He believed the old carpenters derived more pleasure from their work than we derived from ours, because they read less and thought more; putting more thought into their work, more thought was got out of it. Their ideas were fostered and stimulated by the thoughts and feelings in the things around them. The capital and door-knocker were eloquent in their appeal to his fancy. But now the idea that a chair or table could be made to express thought or feeling seemed to the modern worker to be quite ridiculous; mundane considerations filled his horizon. Whatever the difference might be in material development, the spiritual qualities were to all alike a perpetual aim. Once let it be recognised that the spiritual verities were of primary importance, and that we could help on our own as well as our neighbours' growth in virtue by trying to put thought and feeling into our work, we should find an added joy in labour far more precious than any material reward. We were all endowed with the power to impart thought and feeling what we needed was the power to discriminate between good and noble thought and feeling and the baser sort. What had our schools done in this direction, and what were they doing? Many of them taught that in certain past ages very beautiful work was done, and that such beauty was not possible to this dark age; we must go on our hands and knees and measure up and draw and learn like parrots to imitate with technical excellence what the ancient and good had shown us. This was false teaching; there was as much capacity for goodness to-day as there ever was in any age. Men could turn out work as perfect in all material qualities as the world had yet seen. The difference was due to spiritual and not material qualities. In the past men had more pleasure in work and spent less time on games; they were more spiritual and less material in their attitude of mind.

The human quality in familiar objects had in many cases been driven out by the machine. Nevertheless, the machine had come to liberate men's minds for more intellectual work than was provided for him by the sawpit, though still there was much work in the world which required little or no intelligence. The sense of duty had often transformed irksome tasks into pleasant labours, and many dull occupations might be made enjoyable by instilling spiritual qualities into them. Conscientiousness and a love of truth and hatred of all forms of deception would help us to make the hidden parts of our work as good as those that were seen. And patrons, if they, too, felt the same, would be glad to pay for the absence of strain. If we would frankly acknowledge the structural necessity of nailing down floor-boards, we should not strain our ingenuity in devising methods of secret nailing. We were far too keen on mechanical perfection. That love of smooth, polished surfaces was very materialistic; it could be produced without brains, and in most cases could be produced only by the elimination of all thought and feeling. It was delightful to see skill of hand and eye and all evidence of painstaking was a joy to behold. But in our materialism we had run after the perfection of the machine, preferring it to the perfection of the human heart. The modern builder would have the arrises of his stones drafted and made mechanically square and true, so that the mason could set them with plumb-rule and little or no thought, preferring that mechanical exactness to the work of the painstaking human eye. And many a mason preferred to use a tool rather than have to think. Materialism was thus encouraged on every hand.

He would not have them go back to old methods of hand labour and neglect the aid of the machine. All that was needed was to recognise its material value and its spiritual imperfection, and to put into all our handwork that thought and feeling which was the breath of life. We were all keen enough if our local sanitation were at fault, and anything that endangered our body was at once attended to. But the hideousness of our lamp-posts, the poison to our souls' eyesight through the degradation of vulgar advertisement, was allowed to go on unheeded. We could not hope to stem the torrent of hideousness all at once; sensitiveness to beauty required ages of cultivation, and could only spring from a deep and sincere love of truthfulness. To be true to their material, their conditions, their highest instincts, was the surest and only way to true art,

so that the first duty was to sweep away all shams, and give up pretending to be Greek or Roman in our architecture. If we had no noble ideas, let us hide our heads in the sand until we got some, but do not suppose that we are noble because we have learnt how to copy the expressions of the noble men of old. All the beautiful human work that has been bequeathed to us by the ages was the outcome of sincere and honest thought and feeling, and it was still those spiritual qualities that kept it alive in our affections to-day. Let us see that our work was palpitating with sincere and noble thought and feeling, whatever our work might be. The frame of mind of the joiner in mitring his architraves was destined to have its effect, whether it be followed by the painter or not. Faithfulness in little things built up the strong character and made work enjoyable to the worker, and laid the foundation-stone of that sense of beauty which we all needed. Sincerity and simplicity and directness of purpose were the essence of all good work, in whatever material we might be engaged with. Fitness was good, because it was a universal law of nature, and it was an essential to beauty. All organisms were for ever moving in the direction of greater fitness and harmony of condition, and it was essential to fitness that objects should minister to our spiritual growth, as that they should minister to our bodily comfort; and it was an important fact that only to minds set on goodness was the manifestation of beauty possible: That was to say, if our work was to be fit and beautiful, it must express some good thought or healthy emotion. Whatever we make, be it only a chair, could record our honest endeavour to serve a useful purpose and stimulate kind feeling. When asked to design anything we immediately inquired how someone else did it; having no reverence for our contemporaries, we looked to the dead and buried, and found our museums crowded with lovely examples. Every inducement was held out to us to use the wits of others rather than our own. If we would go humbly to nature more, we should have a juster reverence for man's work. We should not be content to copy his successes and his failures without exercising our own faculties. It was much more healthy for a student to be told the conditions and requirements necessary to provide any given object of use than to set him to copy the best example of the same in existence. The process of thought in the classification of requirements and condtions was immensely valuable. It stimulated the faculties and warmed the heart, and encouraged the feeling that there was always room for improvement. But the general method of procedure was to fix on existing human production as more or less perfect and final, and at any rate superior to our own, and then copy, copy, copy, without having a full knowledge of all the circumstances and conditions that gave rise to the object of our admiration. The student's faculties were in this way cramped and petrified. What we needed was more reverent study of nature and nature's ways. The effect on the human mind of watching and tracing out the operations of nature was of untold value. It humbled a man and softened his judgments of his brother; it quickened all that was best in our characters. The more we looked into nature the more we felt the spiritual forces behind it all. It was this perpetual attention to the spirit in its purest manifestation that would improve our work, and so increase our happiness and usefulness. The smallest article of daily life might be greatly enhanced in value by the spirit of the workman in its creation. It was quite easy to see when our articles of daily use were made by loving hands and thoughtful heads, and when they were made by human drudges working for wage alone. To impart this human spirit to anything, we must not imitate blindly; no feeling could be imparted until it had been truly felt by the workmen.

It was a material necessity that we should specialise in various vocations. Life was so short. But we must not confound this specialising in various crafts and professions with the development of our spiritual nature. One man might work with a chisel and another with a brush, but both had the same human virtues to deal with. Both had the same spiritual qualities to think and feel about. Beauty in its myriad forms was not the prerogative of the painter. The expression of beautiful thought and feeling was the function of every human creature, and, for aught we know, every animal. It was a most mischievous distinction that had designated some men and women as artists, and led others to think that the expression of beautiful thought and feeling in things material was a matter they need not care or think about, or were incapable of understanding. It was universality of artistic expression and sympathy we needed to encourage and foster, and which the attention to our spiritual nature would do more to stimulate than anything else. It surely was much more invigorating to believe that we were working to express universal ideas than that our labours were purely material and perishable, appealing only to the lower part of man's nature. If also the spiritual quality was uppermost in our minds, we should feel less the relative importance of our several occupations. We should find spiritual giants in small secluded places. A man's importance in the world would not be measured so much by his social position as by his earnestness. We all recognised that a bad smell was injurious to health of body; and we did not remember that ugliness was injurious to the health of our soul. If, then, we were to avoid all ugliness, we must be very simple in our homes and very careful not to harbour things that were intended to look better than they are. This striving for simplicity, if sincere, would enable us to distinguish between sensuous forms and colours and those things which stimulated the thought as well as the feeling of the beholder. A great deal we collected around us was of that sensuous kind that caused purely emotional and vague feelings of pleasure, but left us no better than we were before. In fact, lavish ornament was like a drug, the dose required increasing as it lost its effect. Let the simple articles of use show an honest endeavour to fulfil the practical purpose of their existence, and a reverent regard for the materials of which they were composed—that was, we must not use wood as if it were wrought-iron, but suit our design to the natural character of the material. And let every bit of ornament speak to us of bright and healthy thought. We should not string meaningless forms together merely for the purpose of sensuous pleasure. Better derive pleasure from the observation of fitness and proportion, because it was a nobler form of enjoyment—nobler simply because it appealed to the whole man and not to the one faculty of sensation only.

Could we not arrange the furniture and ornaments of our rooms so that each had its due share, nothing being crowded, and every article helping to make its neighbour's virtue more, not less, pronounced? The essence of good proportion was making one line, surface, or space helpful to the full expression of another—in harmonious contrast, not angry rivalry.

The lecturer then referred to the calm and repose of nature, and the help to be got from nature in the matter of colour. Proceeding, he said that one of the chief reasons why we should evolve our creations out of a due consideration of conditions and requirements, instead of imitating tradition or well-beloved examples, was that our conditions and requirements were always changing. New methods and new materials were constantly being evolved, and men's habits and tastes were for ever developing. If fitness was to be the law, as it was nature's law, we must not pin our conceptions to pre-existing forms too rigidly. Any revivalism must involve the sacrifice of fitness, and we should be ready to part with old traditions when we had found other methods more fit; we had certain characteristics peculiar to our own country and nation, such as climate, which we ought always to acknowledge and rejoice in.

The feeling of generosity—the feeling that we must bestow some benefit, give to others something that we believed to be good—if more cultivated, would tend to the greater enjoyment of life to all of us, but it was stifled by our attention to material gain.

The carpenter, in making a door for us, would think he had served us better by adding an eighth of an inch of thickness more than we bargained for, than if he strove to think, and feel, and show a keen desire to express dignified and simple proportion, faithful care in the hidden parts, and an earnestness to serve well and assist the efforts of brother workmen. How often, metaphorically speaking, we measured out our wood and labour, and balanced it with the payment we were to receive; but in no wise did the bestowal of anything come into our reckoning: Wood and labour we could measure and weigh, but if, in addition to material and labour, we added thought and feeling we were bestowing just that spiritual quality which would make our wood and labour a joy to producer and possessor alike. Was not this thought and feeling, then, the very soul of material creations, and the only enduring quality about them? Was it not because we believed the pursuit of beauty tended to improve character that we were so keen about the arts? But although so precious, it would not take the place of the material qualities or be made manifest without matter, and thus they had to be careful to give the material qualities they were paid for, and in their care they bestowed a certain amount of that thought and feeling they regarded as essential, and by the very nature of things they could not escape from spiritual considerations. It rested with them to stimulate and enrich this quality by the addition of generous feeling, and in so doing add the thought and feeling that would make their work something more than the mere fulfilment of material requirements.

We frequently found the instinct to enrich exercised in adding only material qualities: As, for instance, a door might be moulded and chamfered, and have bevelled panels, innumerable crevices and ledges for dust, which in no way ministered to our thoughts and feelings except to distress them with a sense of wasted labour—labour not only in the making, but in the keeping clean. Such so-called enrichments were not real enrichments at all, though they added to the complexity and intricacy of anything. Unless they added to our pleasure they were so much waste, not to say poison. If, on the other hand, by our mouldings and panellings we aroused the sense of grace, proportion, dignity, delicacy, or greater fitness, we were certainly enriching our work.

Let them think what a keen love of cleanliness could do if applied to our architecture in dirty towns. How much so-called ornamental enrichment collected dirt and depressed us by harbouring all that was unclean and repulsive—producing feelings the very reverse of pleasure. The very proper pleasure we felt in dexterity was often sacrificed for the sake of elaborate ornamentation that was hopelessly meaningless and sometimes used to hide bad workmanship and bad material. We could not be too simple. A true desire to be simple in all we did strengthened our sense of fitness, and tended to the perfecting of proportion and workmanship, and a more reverent regard for the natural qualities of material. Carving, richly-veined marbles, and finely-figured woods were only the action of irreverence and conceit. We ought to respect nature's veining too much to allow of our chopping it up with man-made pattern. We were too apt to furnish our rooms as if we regarded our wall-papers, furniture, and fabrics as far more attractive than our friends. We did not mind how a hideous chimney-piece destroyed

the outline of our human heads and protruded its complex gathering of forms, colours, and textures in distressful restlessness. In this climate the fireplace should be the centre of interest in a room, when considered as an apartment. But in actual life it was subservient to human beings, pictures, sculpture, or books, or anything else possessing more thought and feeling. Often the feeling of generosity was expressed by making the parts of a building or object larger than might be actually required on structural grounds. For instance, the old roofs were composed of massive timbers, it being in old time often cheaper to use a whole tree than cut it up. There was a certain satisfaction to the eye to be gained by proportions which were in excess of mathematical requirements. We called the architect's work an art, but the engineer's work a profession; and the difference might be traced to just that addition of the spiritual quality of generosity, just that thought and feeling which humanised the work. The engineer's labour satisfied us on account of its fitness; it appealed to our intellect rather more than to our heart. Of course the association of ideas was a very important factor in the formation of our taste, and must often be the chief groundwork on which we build up our principles of design. Would that we more often thought of this principle in our house-building. Looked at from every point of view, most of our houses resembled the forms of storms. Hardly anywhere did we see houses standing peacefully as if to stay and calm by their reposefulness. They looked more like spectres that came and went in the twinkling of an eye, angularity and infinite variety of shapes and proportions jutting out with surprising wildness, as if they were waving their arms impatiently and angrily; and to add to their complexity they were composed of an infinite number of differently coloured materials and textures, just like the drawing-rooms inside. It was our mad rush for wealth and material things that fed on advertisement, until our very houses shouted at us for attention. A little more love of peace and quietness and a greater readiness to take a seat behind nature, instead of crushing her under our feet, would help to make our buildings more pleasing and restful. Greater spirituality, in fact, would blot out all material vulgarities. Our wonderful resources for gaining knowledge and culture had not made our work more beautiful. The most intimate knowledge of the history of Greece and Rome, what had it done for our buildings? It had failed hideously, and stimulated pride in scholarship. It had made us vain, but not thoughtful; arrogant, but not emotional. Better had we sought out the immortal thoughts and feelings that guided the spirits of ancient times.

A very hearty vote of thanks was accorded to the lecturer, on the motion of the Chairman, and the proceedings terminated.

DESIGN AND CRAFTSMANSHIP IN ENGLISH WOODWORK.

On Thursday last week at Carpenters' Hall, London Wall, Professor Beresford Pite delivered a lecture on this subject. Mr. T. G. Jackson, R.A., presided, and the lecture was illustrated with a number of excellent lantern pictures.

Professor Pite said that woodwork was the basis of many forms of stone architecture, and we saw now perhaps more clearly than hitherto how underneath the well-recognised forms of Greek architecture lay the ancient civilisation of Mycenæ. Under Mycenæan art lay a cult as to which there was a great deal of mystery and some little discussion. In the heart of this mystery stood a column undoubtedly of wood, and which bore a singular likeness to the well-known Doric column of fully-developed Greek art, but with peculiarities which connected it solely with wooden origin. In Egyptian architecture, characterised so closely in our minds by its granite material, we discerned nowadays an origin which was related to the reed and mud architecture of the Upper Nile valley, and it had been pointed out in a most interesting way how that the sloping walls of the Pylon and the gable mouldings were entirely derived from the shape of a dwelling in the Valley of the Nile constructed originally of long reeds with their overhanging tops plaited at the head in order to give strength and resistance to what was an exceedingly fragile dwelling. In the course of centuries painted representations of these reed and mud dwellings became part of the artistic record of the national life, and possibly after the lapse of some 2,000 years these ancient historic paintings became the types of the development of historic form in architecture, dissociated from its original wood and mud material, and perpetuated in the buildings of lower Egypt. It was interesting to bear in mind that both Egypt and Greece were countries where stone was the predominating building material. There was the wonderful granite of Egypt and the splendid marble of Greece. Neither of these were the centres of timber-producing countries, and yet it derived the character of its stone and granite architecture from some wooden original and some wooden idea. The fruitfulness of the wooden idea when it was translated into stonework was significant, when it was remembered that stone in itself as a material did not seem to yield any original type of architecture. For centuries we had had Stonehenge in our midst, and it was singular how little we knew about it. It stood emphatically as a monument of a stone building age, but it was without suggestiveness, and it had no descendants. It was also noticeable that the wood-producing countries of Europe, the forest lands of Scandinavia and ancient Britain, had produced no lasting wooden art. Saxon wooden buildings had come and gone. They had been the prey of raiders and of accidental burnings. There was a remarkable survival of a Saxon wooden building within easy reach of London, at Greenstead Church, near Ongar. The body of the church was constructed of oak-tree trunks, not halved but axed to a little face on the inside, the outer surface being the natural shape of the tree trunk. The porch and dormers were modern, and the tower was practically modern, but the church was a typical wooden Essex type. It was exceedingly pathetic when one realised that this building near to London was the only remnant of a long era of some 500 years of wooden architecture in England—the architecture of the Saxons when England was a forest. The lecturer passed on to ask what were the sources or motives of any design in any handicraft, and said that the first object was primarily utility. Then we wanted something more; we were not satisfied with that which was useful only—the aspirations of the human mind always had a craving for something extra—probably that was the best definition of it. That something extra was an expression of some interest or for something more than that which was merely useful—they might call it ornamental; but it need not necessarily be that. It was something not useful in itself, but essentially thought-provoking—something in which the user or beholder and the maker or designer could both sympathise, their thoughts meeting in a common interest. In Doric art they had not merely the useful fact of the column and the lintel usefully executed in marble, but they had the fancy of the triglyph, which was an undoubted imitation of parts of work of wooden construction. They also had the added thought of the sculpture. This general reliance on wooden construction in order to give expression and meaning ceased with the advent of Roman art. The Roman dealt on a huge scale for his imperial and useful purposes, and he imported his acquired possession of Greek art. The Roman was followed by the Byzantine, and the Byzantine developed domed architecture for well-nigh 500 years, always in brick and mortar, then rubble and mortar taking its place. In Roman and Byzantine and all the older architectures we found rubble and mortar as the sources of inspiration in the building art, and that was true throughout all the building art of the middle of the XVIth century. During the whole of this period there was no harking back to the original wooden type. English architecture practically began with the year 1000, and from 1000 to the time of the Renaissance, 500 years after, Gothic art progressed as a progressive masonry, and what was true of England was true of the whole of north-west Europe. The insularity of England was very important in its art history. The English did not seem to have the faculty of originating types, but they had a distinct tendency to vary types. When one reflected upon the enormous amount of satisfactory and grand Roman buildings which existed in England in the IVth century and in the early part of the Vth century, it was strange to think that the whole of this mass of useful, and in many cases beautiful, buildings seemed to have been entirely disregarded by the five centuries of Saxon builders who succeeded the Romans. That brought them to the time of the Norman invasion, and they came with a vigorous building art. Perhaps there was no Norman building more important or more expressive than the Tower of London, because it was one of the few buildings which to-day fulfilled its original object. Built as a castle, it was still the military centre of London. The Norman hand lay heavy upon England for half a century, but it was perfectly evident that the native builders criticised and avoided the architecture of the invaders as long as they could. Thus we found Saxon architecture in England subsequent to the Norman Conquest. From the year 1000 we had five centuries of the most interesting and remarkable development of the craft of masonry, which could be traced in London from St. John's Chapel in the Tower to Henry VII.'s Chapel at Westminster. During those 500 years he ventured to suggest that architecture in England showed a more rapid advance and a more powerful grasp than could be shown by any other country in the world during the same period, and when they reflected that it took 500 years for the Doric order to develop until it reached its perfection in the Parthenon, they would see the point illustrated. Compton Church, near Guildford, illustrated the Norman characteristics of the period immediately succeeding the Conquest, and gave us the most ancient piece of Norman woodwork in England. The Temple Church illustrated the use of the square capital before the XIIIth century, which changed the character and which differentiated the English school of architecture from the Continental schools. The choir stalls at Westminster illustrated the next move in Gothic art, there being almost an unnatural delicacy in the stonework of this period. Passing to the XVth century, the lecturer drew attention to the lacework in the roof of Henry VII.'s Chapel, and remarked that if it were woodwork it would be wonderful, but it was more wonderful seeing it was stone. All through this period, with the exception of domestic architecture, carpentry followed in the wake of art—it did not show the way, but followed. It had its own utility, but all its expressions were from stone. That state of things lasted until the Reformation, and from then masonry as an art in England lost its importance, to be replaced step by step, and hour by hour, by the growing art of the carpenter. The choir stalls in Winchester Cathedral, which were built in 1296, contained some of the most beautiful woodwork in England. No such subservience was shown in structural carpentry as was exhibited in decoration work, and it was interesting to find that the carpenter on occasion could, when necessary, display the same vigour and courage as his brother mason in construction, and we might well be proud of the Hall at Westminster—the finest mediæval roof in the world; of the great lantern at Ely, a

magnificent wooden construction; and of such a group of buildings as that of which old Morton Hall, in Cheshire, was a type. March Church, Cambridgeshire, was a very fine type of the hammer-beam roof, in which the decorations were beginning to float freely in the air independently of the support received from masonry. Speaking of half-timber constructions, Professor Pite said that an excellent example of this form of architecture was to be found in Staple Inn. Having shown some XIIIth century wood bosses from South Kensington Museum as illustrating the strict adherence to stonework carving, the lecturer said that in the XIVth century the character of the work was altering. The carver, of necessity, was of a more independent character—he was less subject to tradition than the carpenter. Passing from the epoch of the mason, they came to the date when the carpenter arrived at his own. The advent of the Renaissance, in the XVIth century, at once created an enormous interest in carpentry. Quite an early example was the screen and stall work of Bishop Fox, of Winchester, in the church of St. Cross. The screen in King's College Chapel, Cambridge, was one of the most extraordinary and beautiful pieces of woodwork in the whole of Europe. It looked to him (Professor Pite) very much like the work of an advanced Italian architect. The lecturer then exhibited some panelling from Exeter of the late XVIth century in the British Museum, which illustrated that the art of moulding had arrived. By the beginning of the XVIth century the art of mitring had come, and the joiner, he said, used it very freely. If they had watched the history of English masonry up to this period he thought it would be borne home that the British mason did not discover the properties of the ellipse, but having once discovered it used it as an ornament. Ultimately woodwork was delivered from the bondage of stone. The lecturer concluded by exhibiting some excellent pictures illustrating the carpenters' craft in the Elizabethan period, including the staircase at Hatfield House, the grand staircase at the Hall at Thorpe, and the choir stalls at St. Paul's.

ARCHITECTS' TECHNICAL BUREAU.

WE have received the following communication from the "Architects' Technical Bureau":—

The Bureau has now issued to its subscribers the "Bureau Annual," which embodies an amount of useful data, together with appointment diary, etc. The main portion of the book, however, consisting of some 100 pages, has been set aside for comprehensive tables of prices relating to all materials and fittings used for building purposes.

The principle that has been kept foremost in mind in compiling these tabulated prices is to enable an architect, by means of an inquiry to the Bureau, to obtain a varied and up-to-date selection of designs or particulars of goods *at or about a certain cost*, it being generally known whether the work to be executed is to be of an economical, medium, or more costly character, goods being required accordingly.

By way of more definite explanation the following example is taken from the book:—

(Trade: Founder and Smith.)

		A.	B.	C.
513.	Gunmetal casements and frames hinged to open, at works under 4ft. high.	100s. ... to 115s.	115s. ... to 130s.	130s. ... to 150s.

Should, therefore, particulars of gunmetal casements and frames of medium cost be required, the inquiry to the Bureau should run:—"Please furnish particulars of No. 513 B," when the required information will be promptly forwarded, the particulars being filed and indexed at the Bureau under this number. The prices being taken in the order generally to be found in a bill of quantities will be found of assistance to quantity surveyors or architects when preparing their specifications.

Certain pages are set aside for entering a record of provisional amounts, so that a selection can be made at a later stage when desirable, it being understood that particulars of goods at or about a certain cost can be obtained from the Bureau.

The book is issued to subscribers only, it being chiefly intended as a guide for the Inquiry Department. Extra copies may be obtained if desired at 2s. 6d. net.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., Mr. R. A. Robinson, Chairman, presiding.

Loans.—It was agreed to lend Woolwich Borough Council 753*l.* for electric lighting, and sanction was given to Stepney Borough Council to the borrowing of 1,196*l.* for street improvements, and 10,000*l.* for electric lighting.

Tramways.—The Highways Committee recommended:—

"(*b*) That a provisional agreement be entered into with the Metropolitan Electric Tramways, Ltd., for the construction by the company under the Metropolitan Electric Tramways Act, 1908, of the extension of the Harrow-road tramways to Edgware-road; and the purchase of the same by the Council, and that application be made to Parliament in the present session for the confirmation of such agreement.

(*c*) That, subject to the approval of Parliament of the agreement referred to in the foregoing resolution (*b*) an agreement be entered into with the Metropolitan Electric Tramways, Ltd., to provide for the granting of running powers to the company over the existing and extension tramways for a period of twenty-one years, determinable at the end of the first seven or fourteen years on the terms set out in the foregoing report.

(*d*) That an agreement be entered into with the Metropolitan Electric Tramways, Ltd., providing for the temporary working by the company, upon the completion of purchase, of the existing tramways in Harrow-road, situated in London, on the terms set out in the foregoing report."

The recommendations were adopted, an amendment being carried to the effect that the Council's labour conditions should be observed.

It was also agreed:—

"That the estimate of expenditure on capital account of 3,675*l.*, submitted by the Finance Committee in respect of the trackwork, paving, etc., in connexion with the erection of the first portion of the Abbey-wood car-shed and the wiring and fitting of the building for electric lighting.

That the seal of the Council be affixed to an agreement with the Hampstead Metropolitan Borough Council with regard to the paving and maintenance of the tramways area along the tramways in Agincourt-road and Constantine-road, which are about to be reconstructed for electric traction.

That expenditure on capital account not exceeding 4,700*l.* be sanctioned in respect of the construction of temporary turnouts needed for the working of the horse-car services during the reconstruction of the tramways in Essex-road, and from King's-cross to the Archway Tavern."

Training College, etc., Wandsworth.—It was agreed that the estimates of expenditure on capital account of 730*l.* and 328*l.*, submitted by the Finance Committee in respect of (i.) taking out and lithographing quantities in connexion with the erection on the "Furzedown" site (Wandsworth) of a training college for 264 women, a hostel for forty-eight students, and the adaptation of the existing house on the site as a hostel for fifty-two students; and (ii.) a secondary school for 456 girls, respectively, be approved.

School.—It was agreed that the estimate of expenditure on capital account of 297*l.*, submitted by the Finance Committee in respect of taking out and lithographing quantities in connexion with the erection on the Manor-lane site (Lewisham) of an elementary school for the accommodation of 817 children, be approved.

Conditions of School Drains and Offices.—The Education Committee reported as follows:—

"In July, 1906, we carefully considered as to the condition of the drains and offices of the non-provided schools which were ascertained in the course of the survey to be in an unsatisfactory condition. As a result we arrived at the conclusion that in 205 cases the drains and offices were in a condition which constituted an immediate danger to the health of the children in attendance, and the Council, on our recommendation, informed the managers that unless the sanitary arrangements passed satisfactorily the smoke and chemical tests, it would cease to maintain the schools as from certain dates. Four of these schools have been transferred to the Council and twenty-five have been closed. At 168 of the remaining schools the managers have completed all the sanitary improvements required, and the drains and offices have satisfactorily passed the water test, and are therefore in a perfectly sound condition. In eight instances the managers have effected such improvements that the drains and offices have passed satisfactorily the smoke and chemical tests, and can be regarded as temporarily satisfactory pending the completion of the whole of the Council's requirements.

With reference to the schools whose sanitary condition was not regarded as a source of immediate danger to the health of the children, we have been in communication with the managers with a view to the Council's requirements in regard thereto being complied with as soon as possible, and with the exception of eighteen the whole of the schools have been put into a perfectly sanitary condition. In the majority of these cases the necessary work was to be undertaken during the Christmas holidays, 1908, and will shortly be inspected by the Council's officers.

With the exception, therefore, of the twenty-six cases mentioned above, the whole of the non-provided schools in the administrative county are now in a sound sanitary condition."

Making-up Carriage-way.—It was agreed that the making-up by the Westminster City Council of the carriage-way and the eastern footway of Melbourne-place, between the Strand and the northern end of the Victorian Government buildings, and the construction of a temporary footway, 6 ft. wide, from the latter point to Aldwich, at a total estimated cost of 370*l.*, be approved.

Cinematograph Dangers. — Mr. Walter Reynolds asked the Chairman of the Theatres and Music-halls Committee whether he could give any information as to the progress of the short Bill promised by the Government to bring all cinematograph exhibitions under the control of the Council.

Mr. Greenwood replied that he had no information as to the progress of the Bill which the Home Secretary had stated he would introduce in the present session of Parliament. No such Bill had yet been introduced, but it had to be borne in mind that barely five weeks had elapsed since the intimation to the Council of the Home Secretary's intention.

After taking unopposed business the Council adjourned.

APPLICATIONS UNDER THE LONDON BUILDING ACTS, 1894 to 1908.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Acts, 1894 to 1908. The names of applicants are given between parentheses:—

Lines of Frontage and Projections.

Hackney, North.—Wooden half columns and a pediment in front of a brick porch at No. 42, Woodberry-down, Stoke Newington (Mr. J. Armitage).—Consent.

Hackney, North.—Buildings on the western side of Castlewood-road, and the eastern and western sides of Moundfield-road, Hackney, with flanks of two of such buildings to abut upon Ravensdale-road (Mr. P. Roche).—Consent.

Lewisham.—An addition to Nos. 1 and 3, Obelisk-buildings, Loampit-vale, Lewisham, to abut upon the eastern side of Molesworth-street (Mr. W. Hancock).—Consent.

Norwood.—The retention of a conservatory at the flank, and the retention of a summer-house at the rear, of No. 20, Wyneham-road, Camberwell, abutting upon Elmwood-road (Mr. A. E. Percy).—Consent.

Paddington, South.—Retention of a projecting hood in front of No. 10, Cambridge-square, Paddington (the Misses L. and M. F. Frith).—Consent.

St. George, Hanover-square.—The retention of a show-case at No. 78, New Bond-street, St. George, Hanover-square (Mr. A. W. Cleaver for the Bond-street Fur Company).—Consent.

Wandsworth.—The retention of balconies to three houses on the northern side of Streatham Common North, Wandsworth, westward of "Daroona" (Mr. W. Newton Dunn for Messrs. Wooding & Cole).—Consent.

Wandsworth.—Retention of twelve houses on the north-western side of Penwortham-road, Streatham (Messrs. Swain & Selley).—Consent.

Wandsworth.—Porches to eight houses on the eastern side of The Grove, Wandsworth (Messrs. H. F. Buchan & Co.).—Consent.

Wandsworth.—One-story shops in front of Nos. 16, 18, 20, 22, 24, and 26, Brookwood-road, Southfields (Mr. W. G. James for Mr. G. E. Cooper).—Consent.

Wandsworth.—A motor-house at the rear of No. 6, Telford-avenue, Streatham-hill, to abut upon Killieser-avenue (Mr. E. A. Willson).—Consent.

Westminster.—A projecting sign on the premises of the Army and Navy Co-operative Society, Ltd., Victoria-street, Westminster (Mr. H. W. Ford for the Metropolitan District Railway Company).—Consent.

Woolwich.—Projecting porches to six houses on the northern side and fourteen houses on the southern side of Dumbreck-road, Eltham (Mr. J. J. Bassett).—Consent.

Woolwich.—Bay windows to Nos. 41, 43, 45, and 47, Glenhouse-road, Eltham (Mr. J. J. Bassett for Mr. A. Cameron Corbett).—Consent.

Width of Way.

Bethnal Green, South-west.—A petroleum store on the southern side of Birkbeck-street, Bethnal Green, at less than the prescribed distance from the centre of the roadway of the street (Sir Joseph Causton & Sons, Ltd.).—Consent.

Greenwich.†—A house on the southern side of Straightsmouth, Greenwich, with a flank wall at less than the prescribed distance from the centre of a footway leading out of the southern side of Straightsmouth (Mr. A. Roberts for Messrs. J. Shorter & Co.).—Consent.

Lines of Frontage, Projections, and Construction.

City of London.—External iron balconies at Tower-hill warehouses, over the public way of Great Tower-hill, City (Mr. H. Chatfeild Clarke).—Refused.

Hampstead.—An iron and glass shelter at No. 341, Finchley-road, Hampstead (Messrs. F. Troy & Co. for Messrs. W. Fowler & Co.).—Consent.

Islington, East.†—The retention of a sign-board on posts above the wall on the southern side of No. 5, Newington Green-road, Islington, and a sign extending between the corner of the said house and wall (Mr. J. A. Langston for Mr. Metcalfe).—Consent.

Kensington, South.—That the Council, on the application of Mr. D. F. Pennant, do extend the licence in respect of the temporary cycle-house in front of No. 26, Victoria-road, Kensington, for a period of three years.—Consent.

St. George, Hanover-square.†—An external iron gangway at the rear of No. 11, Berkeley-street, and an external iron gangway in front of Nos. 38 and 39, Dover-street, St. George, Hanover-square (Messrs. Homan & Rogers for Paquin, Ltd.).—Consent.

Westminster.—An iron and glass shelter at the St. James-park station of the Metropolitan District Railway Company, Broadway, Westminster (Mr. H. W. Ford for the Metropolitan District Railway Company).—Consent.

Width of Way and Conversion of Buildings.

Strand.—The conversion of No. 7, Burleigh-street, Strand, into a dwelling-house (Mr. H. Tanner, jun.).—Consent.

Whitechapel.—The conversion of a brick ventilating-shaft, between Nos. 68 and 70, High-street, Whitechapel, into a building (Mr. M. Bell).—Consent.

Space at Rear.

Norwood.—A modification of the provisions of sect. 41, with regard to open spaces about buildings, so far as relates to the proposed erection of two houses on the eastern side of Knight's Hill-road, Norwood, with irregular open spaces at the rear (Mr. H. G. Leslie for Messrs. Letts Brothers).—Consent.

St. Pancras, West.—A modification of the provisions of sect. 41, with regard to open spaces about buildings, so far as relates to the proposed erection of buildings on the eastern side of Hampstead-road, St. Pancras, southward of Tolmers-square, with irregular open spaces at the rear (Mr. M. W. Matts for Mr. J. Rossdale).—Consent.

Space at Rear and Projection.

Norwood.—Buildings on the northern side of Dumbarton-road, Norwood, with an irregular open space at the rear of the eastern building and with balconies in front of the said buildings (Mr. H. Macintosh).—Consent.

Height of Building and Projections.

Holborn.—Proposed buildings on the south-western side of Sicilian-avenue, Southampton-row, Holborn, to exceed in height the width of Sicilian-avenue, and the erection of bay windows and oriel windows in front of such buildings (Messrs. Worleys & Armstrong for the Selected London Properties, Ltd.).—Consent.

Alteration of Building.

Strand.—The retention of a wall at No. 11A, Regent-street, Strand, of less thickness than required by the first schedule of the said Act (Messrs. W. H. Lorden & Son).—Consent.

Deviation from Certified and Approved Plans and Projections.

Holborn.—Deviations from the plans certified by the District Surveyor, so far as relates to the proposed erection of an addition to the Cosmo Hotel and a new vestry upon the site of Nos. 8 and 10, Cosmo-place, Holborn, and the vestry belonging to the Church of St. George-the-Martyr (Mr. J. Savage for Miss A. Jones).—Consent.

Formation of Street.

Wandsworth.—That an order be issued to Messrs. H. F. Buchan & Co. refusing to sanction the formation or laying out of a street for carriage traffic at the north-western end of Pentland-street, Wandsworth, between two blocks of proposed houses.—Refused.

Cubical Extent.

Marylebone, West.—A deviation from the plans approved in respect of the erection upon a site abutting upon Oxford-street, Duke-street, and Somerset-street, St. Marylebone, of a building with divisions to exceed in extent 250,000 cubic ft., so far as relates to the use of armoured doors in lieu of sliding iron doors to openings, between block K and No. 33, Somerset-street (Mr. R. F. Atkinson).—Consent.

Norwood.—The conversion into a motor garage of stable premises approached out of the eastern side of Knight's Hill-road, Norwood, such premises as converted to exceed in extent 250,000 cubic ft., and to be used only for the purposes of a motor garage (the London General Omnibus Company, Ltd.).—Consent.

Uniting of Buildings.

Chelsea.—The formation of an opening at the Graham-street Motor Garage, Graham-street, Chelsea, and the provision of armoured doors to such opening, and the construction of an iron gable enclosure at one end of the covered yard at the garage (Mr. W. W. Gibbings).—Consent.

City of London.—The uniting of Nos. 14 and 15, Hamsell-street, City, by openings on the second, third, and fourth floors (Messrs. Jauncey & Co. for Battersby & Co., Ltd.).—Consent.

Hackney, South.—The uniting of two factory premises on the southern side of Tynte-street, Hackney (W. S. Thomson & Co., Ltd.).—Consent.

Strand.—The uniting of Nos. 9 and 11, Charing Cross-road, Strand (Mr. E. Keynes Purchase).—Consent.

Strand.—The uniting of Nos. 62 and 63, St. Martin's-lane, Strand (Mr. D. G. Mootham for the London and Westminster Discount Company, Ltd.).—Consent.

Dwelling-houses on Low-lying Land.

Bermondsey.—That a licence be granted to Messrs. G. Potton & Son for the erection of a cottage on low-lying land situated at Larnaca-street, Bermondsey (Mr. J. M. Kennard on their behalf).—Consent.

Greenwich.—Extension of the time within which the erection of seventeen dwelling-houses on low-lying land situated on the western side of West-street, Charlton, was to have been completed (Mr. F. W. Saunders).—Consent.

The recommendations marked † are contrary to the views of the local authorities concerned.

Architectural Societies.

DEVON AND EXETER ARCHITECTURAL SOCIETY.

The twenty-second annual Report of this Society, which was presented at the annual meeting on the 13th ult., shows that the Society now numbers 85 members, viz.: 48 members, 13 associate members, and 24 associates. Since the last annual meeting fifteen meetings had been held, ten being Council and five general, and several matters of importance had been under consideration, including communications from the Clerk to the Tiverton Rural District Council *re* Building By-laws; from the Royal Institute of British Architects *re* resolutions read at the Eighth International Congress of Architects at Vienna on "International Competitions," and the Blackpool Library Competition; also from the Manchester Society of Architects and the Royal Institute of British Architects on the "Towns Planning Bill," and other matters. In April last the Council appointed Messrs. J. Crocker, C. Cole, and A. J. Pinn members of the Council as a Committee for the reconsideration and revision of the Rules. This Committee met on several occasions, and the result was then laid before the Council for approval. The Council still regret there has been no response from the younger members, whereby students of the Society may join the School of Design of the London Architectural Association. Therefore, the guinea book prize, offered by the Society to the competitor whose design is placed first, has not been awarded. It was also noted with regret by the Council that the attendances of members at the general meeting continue to be small; and that when papers are read the benefit they were intended to supply was not gained. For the two guinea prize (in books) offered by the Society for measured drawings for 1908 only one set was submitted; but, being deemed worthy, it was awarded to Mr. W. W. Hitchens, of Plymouth. The following papers were read during the Session: "Some Modern Applications of the Orders," by Mr. C. J. Tait, F.R.I.B.A.; "Some Peculiarities in the Construction of Hollow Walls," by Mr. T. A. Andrews; "Hospital Planning and Construction," by Mr. J. C. Southcombe.

The thirteenth annual Report of the Three Towns' Branch showed that during the past year the Plymouth, Devonport, and Stonehouse Branch had before it the important question of regulations for governing competitions for works of a minor character, and the details were still under consideration. The Committee had held four meetings, and two general meetings had taken place, one being incorporated with the summer outing, which took the form of a visit to Looe.

EXETER ARCHITECTURAL SOCIETY.

The annual meeting of the Exeter Diocesan Architectural and Archæological Society was held at Exeter on the 19th ult., Sir Robert Newman presiding. The Committee, in their report, emphasised the need for extending the scope of the Society's work. They had felt for some time that the work done by the Society in the greater part of the half-century from the commencement of its existence, whilst being then of the most valuable character, had now ceased in great measure to command the attention of the clergy and others interested in mediæval buildings and their preservation. The series of transactions bore testimony to the solid and useful work of the past, but, at the same time, it was felt that there were many departments of archæological research which presented a wide field for work as yet untouched by the Society. The locality was more than ordinarily rich in such subjects for study as prehistoric remains, heraldry, numismatics, and which, if taken up, would afford scope for renewed activity. The committee hoped shortly to make a definite communication on this proposal, to be considered at a general meeting of members. The restoration of the screen of the west front of Exeter Cathedral was proceeding on lines which had given rise to the expression of some variations of opinion. The repairing and strengthening of the south tower had also been taken in hand. It must afford pleasure to all lovers of mediæval work to feel that the important remains of Glastonbury Abbey would now be preserved for all time in safe keeping. Important investigations were still proceeding in uncovering the remains at Tor Abbey. The committee hoped to arrange for visits to both these famous shrines at an early date. The committee and officers were re-elected, after which Miss Edith K. Prideaux read a paper on "The Ancient Carved Bosses in Exeter Cathedral," illustrated by lantern views.—*Western Morning News.*

GLOUCESTERSHIRE ARCHITECTURAL ASSOCIATION.

A monthly meeting of the Association was held at Gloucester on Thursday, the 25th ult., the President (Mr. H. W. Chatters) in the chair, when Mr. M. H. Medland read a paper on "The Roman and Later Buildings found on the site of the Wilts and Dorset Bank, Gloucester." Commencing with the remains of the Roman basilica, Mr. Medland described as far as possible the successive buildings that have stood on the site, the Saxon and Early English churches replaced by that of All Saints of the XIVth and XVth centuries, and succeeding these the later civic buildings of the XVIth, XVIIth, and XVIIIth centuries. Numerous slides of the architectural and other remains of all the buildings were shown, including Roman

figures, early mediæval ornaments, etc. The lecturer also gave much information as to the history of the city connected with these buildings.

NAPPER'S MITE, DORCHESTER.

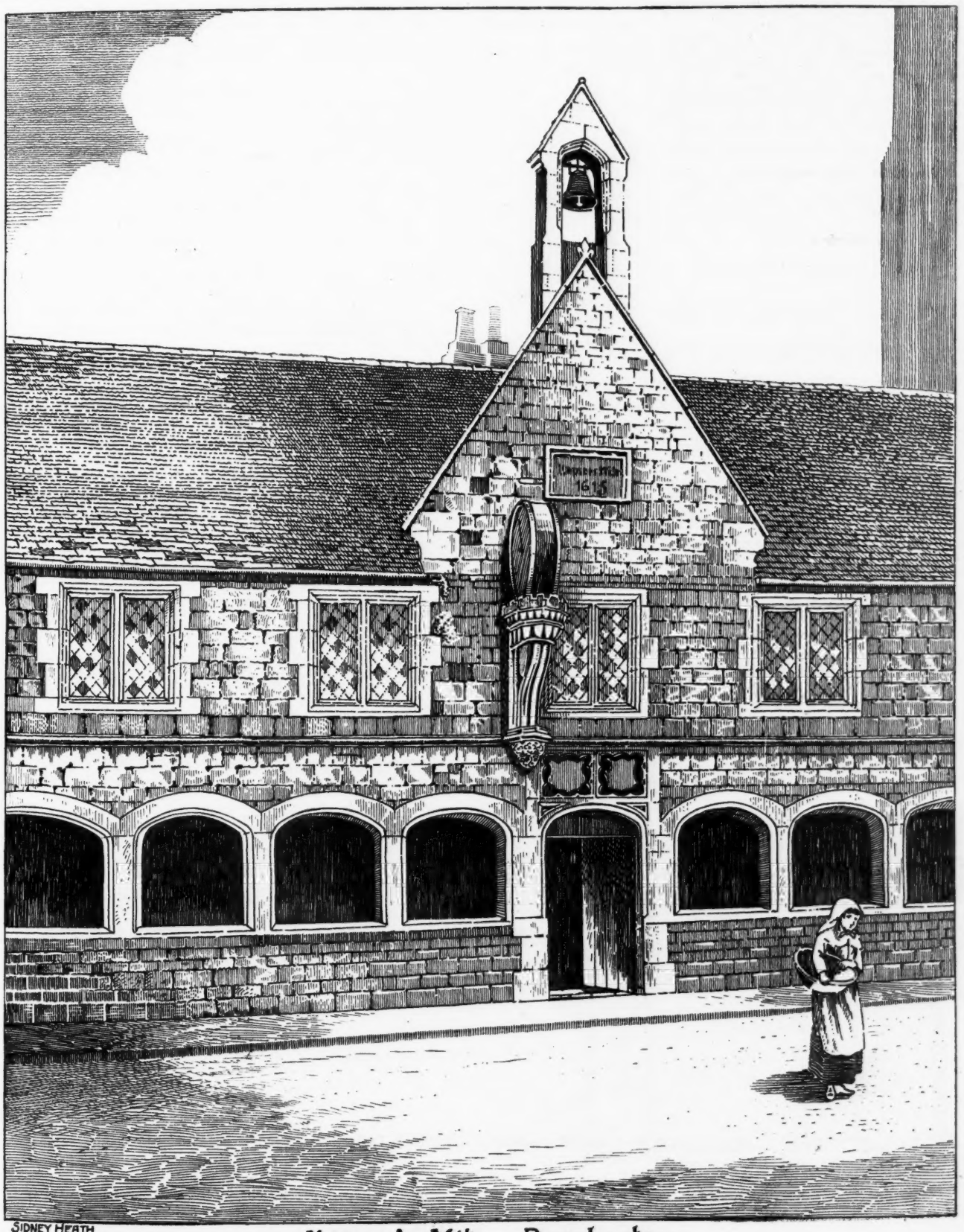
THIS charming little building, situated in South-street, Dorchester, the ancient Durnovaria of Dorset, was erected and endowed in 1615 by Sir Robert Napper, or Napier, of Middlemarsh Hall. Externally the building shows a slender turret containing one bell and a picturesque arcade or open gallery along its entire front. The original foundation comprised ten apartments and a chapel in which the senior brother was appointed to read the prayers and conduct Divine service every morning and evening. The ten apartments remain, but the chapel is now used as a storeroom, on the wall of which is a slab bearing the Napper arms and the inscription—

LA MITE NAPPIER,
BVILT TO THE HONOVR OF GOD
BIE SIR ROBERT NAPPER, KNIGHT,
ANN
XENODOCHIVM.

This slab once occupied a position on the exterior wall, and the last word, signifying in Greek, "a hospital for strangers," also contains the date of the foundation, MDCXV. Within the little cloistered gallery is a staircase leading to a large room on the second-floor, which may have been the common-room of the brethren. The clock, and the stone bracket supporting it, have been copied from a similar design at the old George Inn at Glastonbury. This little almshouse is occupied by ten old men of sixty years of age or upwards, who each receive, in addition to free quarters, six shillings a week. The foundation is controlled entirely by Lord Alington, the direct descendant of its pious founder.

SIDNEY HEATH.

PROPOSED ASYLUM EXTENSION, PURDYSBURN, BELFAST.—On the 22nd ult. the Chief Engineering Inspector of the Local Government Board, Mr. P. C. Cowan, M.Inst.C.E., attended at the City Hall, Belfast, for the purpose of holding an inquiry with reference to the application of the Corporation to the Board for their sanction to loans for the purpose of extending the lunatic asylum at Purdysburn. The estimated cost of the proposed work is 83,000*l.*, and the scheme will provide administrative accommodation for 1,300 patients. In the course of the inquiry Mr. J. T. Tulloch, architect, who is responsible for the plans, gave evidence in detail as to the various buildings proposed to be erected.



Napper's Mite, Dorchester.

THE BUILDER

MARCH 6, 1909.

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N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

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MEETINGS.

FRIDAY, MARCH 5.

Architectural Association.—(1) Special meeting to consider alteration of bylaws. (2) Mr. J. Williams on "George Devey and His Work." 7.30 p.m.

Birmingham Architectural Association.—Mr. C. H. Holden on "Aboriginality in Architecture."

Royal Sanitary Institute (Lectures on Sanitary Science, etc.).—Professor H. Adams on "Calculations, Measurements, and Plans and Sections." 7 p.m.

SATURDAY, MARCH 6.

Edinburgh Architectural Association.—Visit to Royal Scottish Museum, Chambers-street.

Royal Institution.—Professor Sir J. J. Thomson, M.A., on "Properties of Matter."—II. 3 p.m.

Incorporated Clerks of Works' Association.—Twenty-sixth annual dinner, at King's Hall, Holborn Restaurant. Sir A. Brumwell Thomas, F.R.I.B.A., chairman. 6 p.m.

MONDAY, MARCH 8.

Surveyors' Institution.—Mr. J. G. Head on "Giant London—the Evolution of a Great City, its Growth in Size and Value." 8 p.m.

Incorporated Clerks of Works' Association (Carpenters' Hall, London-wall).—Paper by Mr. G. E. C. Lamb, C.E., on "Water Supplies from Artesian Boreholes." 8.15 p.m.

Royal Sanitary Institute (Lectures on Sanitary Science).—Mr. H. D. Searles Wood on "Building Materials." 7 p.m.

Regent-street Polytechnic.—Mr. A. G. H. Thatcher on "Scaffoldings: French and American." 8.30 p.m.

Royal Society of Arts (Cantor Lectures).—Mr. Leon Gaster on "Modern Methods of Artificial Illumination."—IV. 8 p.m.

University of London (South Kensington).—Mr. Banister Fletcher on "The Later Renaissance and the Influence and Works of Inigo Jones." 8 p.m.

TUESDAY, MARCH 9.

University of London (Lectures on French Painters).—Mr. P. Gaskell, R.B.A., on "The Landscape School of 1830." 3 p.m. and 8 p.m.

Architects' Benevolent Society (9, Conduit-street, W.C.).—Annual general meeting of the subscribers and donors. 5 p.m.

Institution of Civil Engineers.—Mr. Leslie A. B. Wade on "Concrete and Masonry Dam Construction in New South Wales." 8 p.m.

WEDNESDAY, MARCH 10.

Carpenters' Hall, London-wall.—Mr. M. H. Baillie Scott on "Ideals in Building—False and True." 7.30 p.m.

Royal Sanitary Institute (Lectures for Sanitary Officers).—Mr. H. D. Searles Wood on "Sanitary Building Construction and Planning; Soil and Local Physical Conditions." 7 p.m.

Northern Architectural Association.—To read the Assessors' awards in connexion with the Glover Travelling Studentship and the Students' Prizes Competitions. A selection of students' drawings will be on view. 7.30 p.m.

Edinburgh Architectural Association (Associates' Meeting).—Mr. J. Salmon, F.R.I.B.A., on "Modern Materials," with lantern slides. 8 p.m.

Royal Society of Arts.—Mr. W. Rosenhain on "The Application of the Microscope to the Study of Metals." Mr. R. T. Glazebrook, M.A., Sc.D., F.R.S., Director of the National Physical Laboratory, will preside. 8 p.m.

Institution of Civil Engineers.—Students' visit to the New Middle-Level and Low-Level Sewers of the Metropolitan Main Drainage System, at Islington and Trafalgar-square.

THURSDAY, MARCH 11.

Carpenters' Hall, London-wall.—Mr. Thackeray Turner, F.S.A., on "Ancient Buildings and their Influence on Modern Architecture." 8 p.m.

Society of Architects.—Mr. A. J. Davies on "Specification and Inspection of Timber." 8 p.m.

Institution of Electrical Engineers.—Mr. E. A. Watson on "The Dielectric Strength of Compressed Air." 8 p.m.

Manchester Society of Architects.—(1) Special general meeting to be held in the Society's Rooms, 16, St. Mary's Parsonage, for election of a Fellow. (2) Sixth sessional papers meeting will be held in the Society's Rooms. The students' drawings for the whole session will be on exhibition, and the prizes gained by the successful competitors will be presented by the President, to be followed by a general review and discussion of the drawings submitted. 6.30 p.m.

FRIDAY, MARCH 12.

Architectural Association Debating Society.—Mr. Theodore Fyfe on "The British Museum—its Claims upon the Architectural Student." 7.30 p.m.

Royal Sanitary Institute (Lectures on Sanitary Science).—Mr. H. D. Searles Wood on "Sanitary Building Construction (Advanced)." 7 p.m.

Glasgow Architectural Craftsmen's Society.—Mr. T. M'Crae on "Portland Stone Building." 8 p.m.

SATURDAY, MARCH 13.

Edinburgh Architectural Association.—Associates' visit to Westbank Brick and Tile Works, Portobello.

Royal Institution.—Professor Sir J. J. Thomson, M.A., on "Properties of Matter."—III. 3 p.m.

Illustrations.

CHURCH TOWER AND EXTENSION OF NAVE, BARNET.

THE illustration shows the proposed additions to the Church of St. Mary and St. Gregory the Great, Barnet, including the extension and completion of the gable end facing Union-street, and the design for a new tower.

The materials of construction will be red brick and Ketton stone.

Mr. J. H. Eastwood is the architect.

NEW POLICE-OFFICE BUILDINGS, SUTTON (SURREY).

THIS is the new Police Station at Sutton, built from the designs of Mr. J. Dixon Butler, the Departmental Architect at New Scotland-yard.

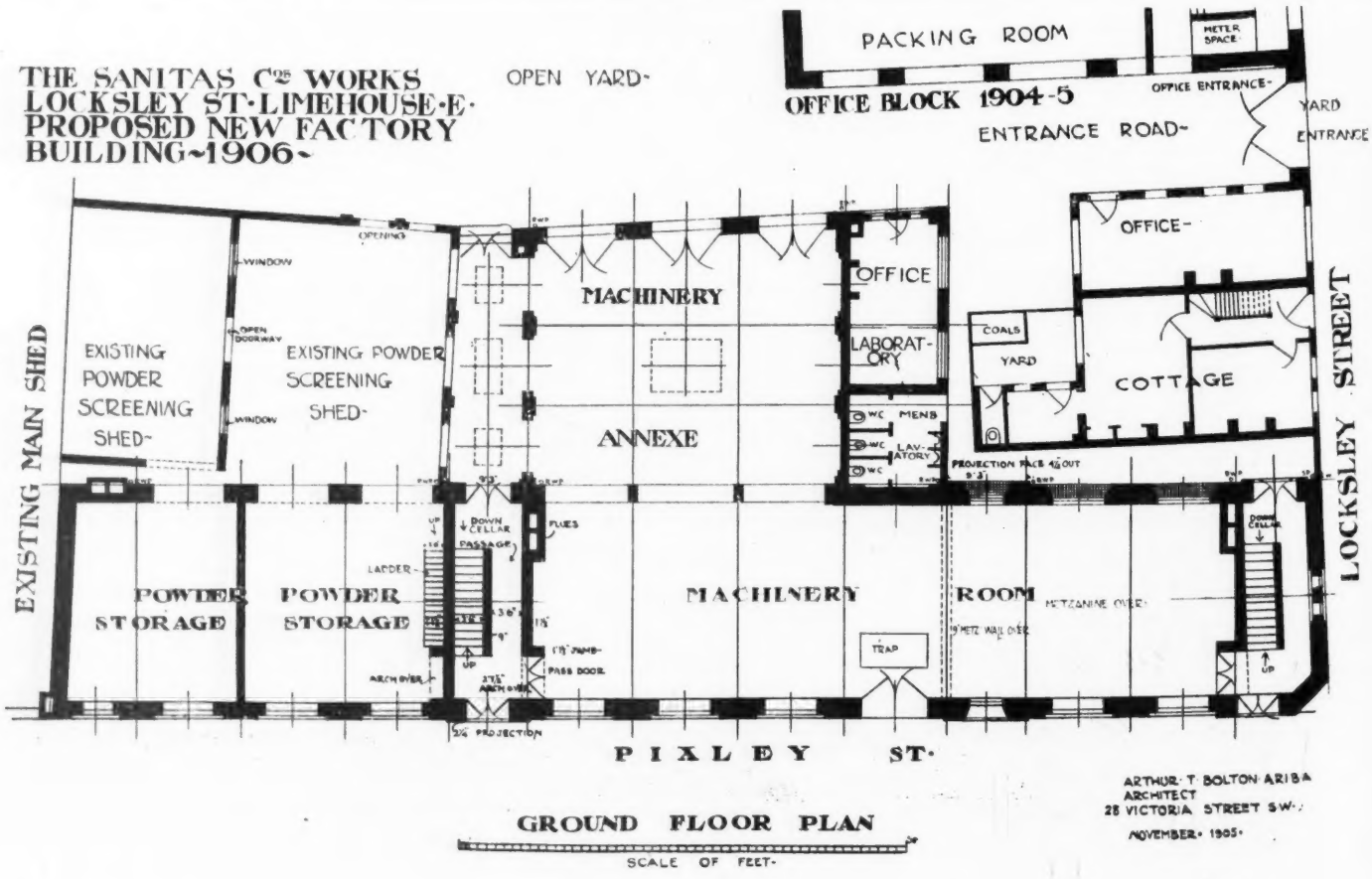
The illustration is from a photograph taken specially for the *Builder*. For obvious reasons, the police authorities object to plans of these buildings being published.

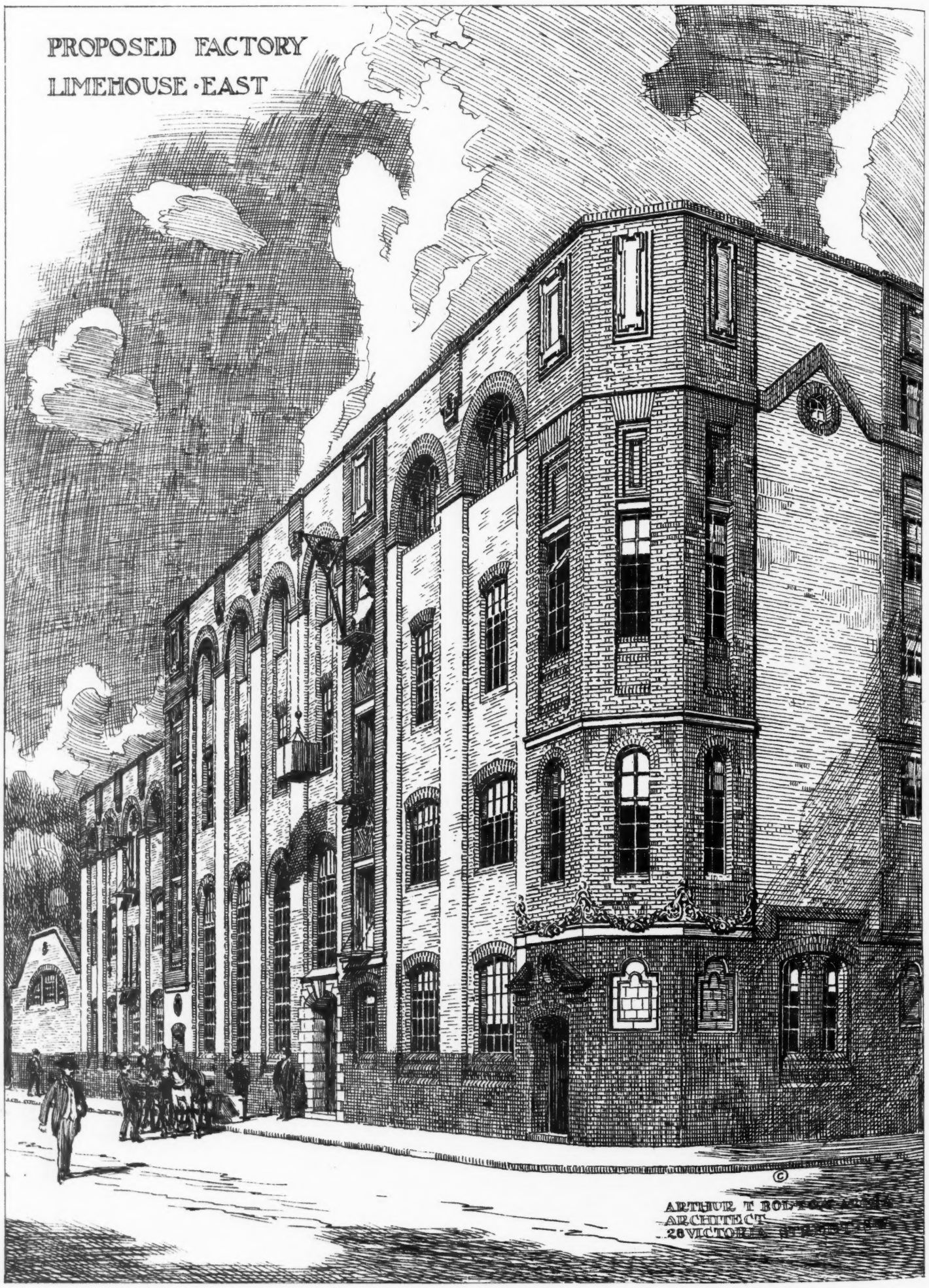
It is satisfactory to find that buildings of this class are being erected by the authorities in a simple and sensible style, without any useless or pretentious ornament.

ESSEX CHURCH, KENSINGTON: REREDOS AND CHANCEL FITTINGS.

THE first portion of the decorative scheme here illustrated was carried out in 1906, when the sounding-board over the pulpit and the two sections of panelling by the vestry doors were given by a member of the congregation. The scheme has been completed during the last summer by the architect as a memorial.

The pulpit, choir stalls, panelling, reredos frame, and communion-table are in carved oak, treated with vine and wild rose designs




PROPOSED FACTORY
LIMEHOUSE · EAST
©
ARTHUR T BOLTON
ARCHITECT
28 VICTORIA STREET S.W.

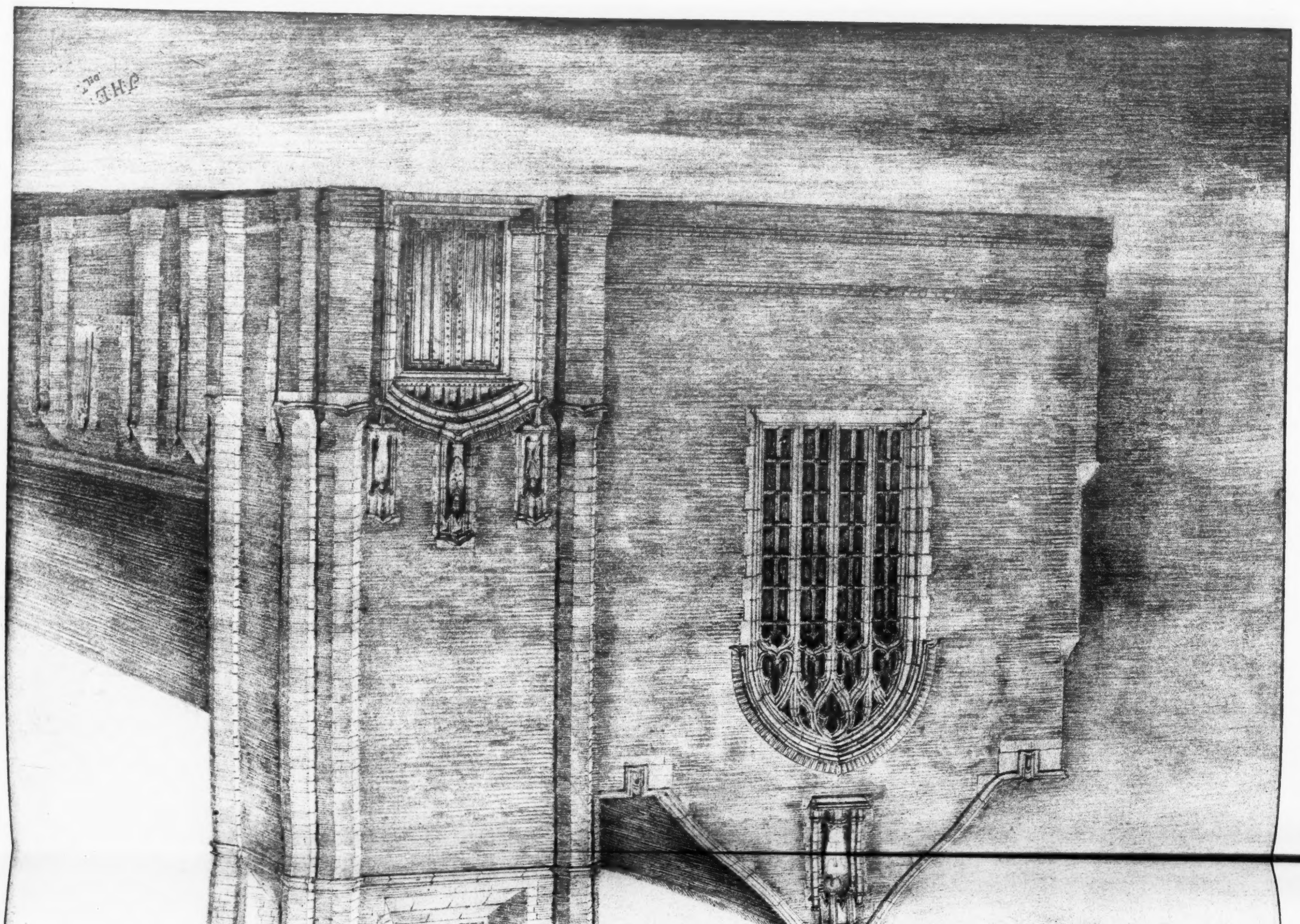
DETAILS OF CHANCEL DECORATION, ESSEX CHUR

Photo by Sprague & Co., Ltd., London.

NEW POLICE-OFFICE BUILDINGS, SUTTON (SURREY).—Mr. J. Dixon Butler, F.R.I.B.A., Architect.

NEW POLICE-OFFICE BUILDINGS, SUTTON (SURREY).—Mr. J. Dixon Butler, F.R.I.B.A., Architect.

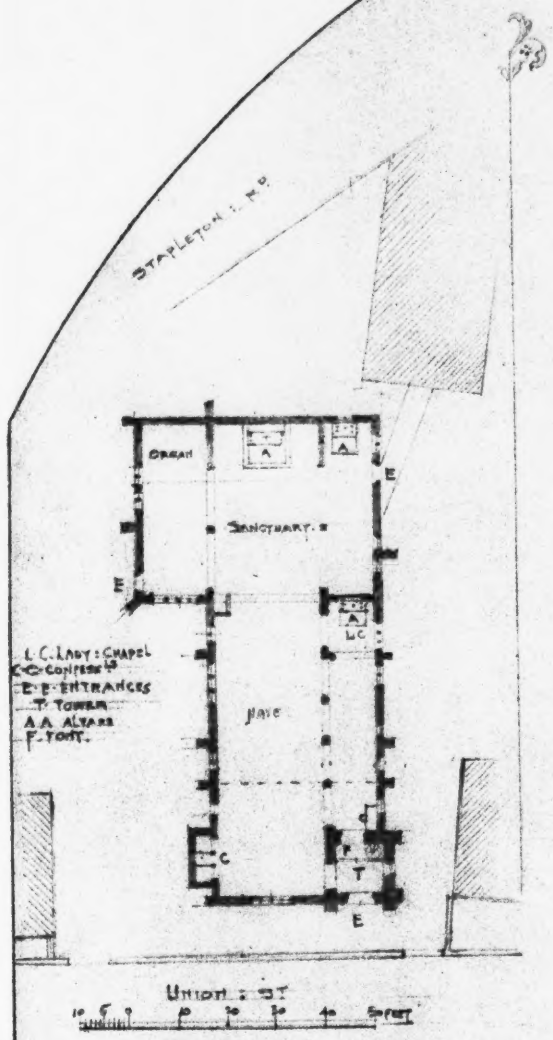
Photo by Stragnus & Co., Ltd., London.

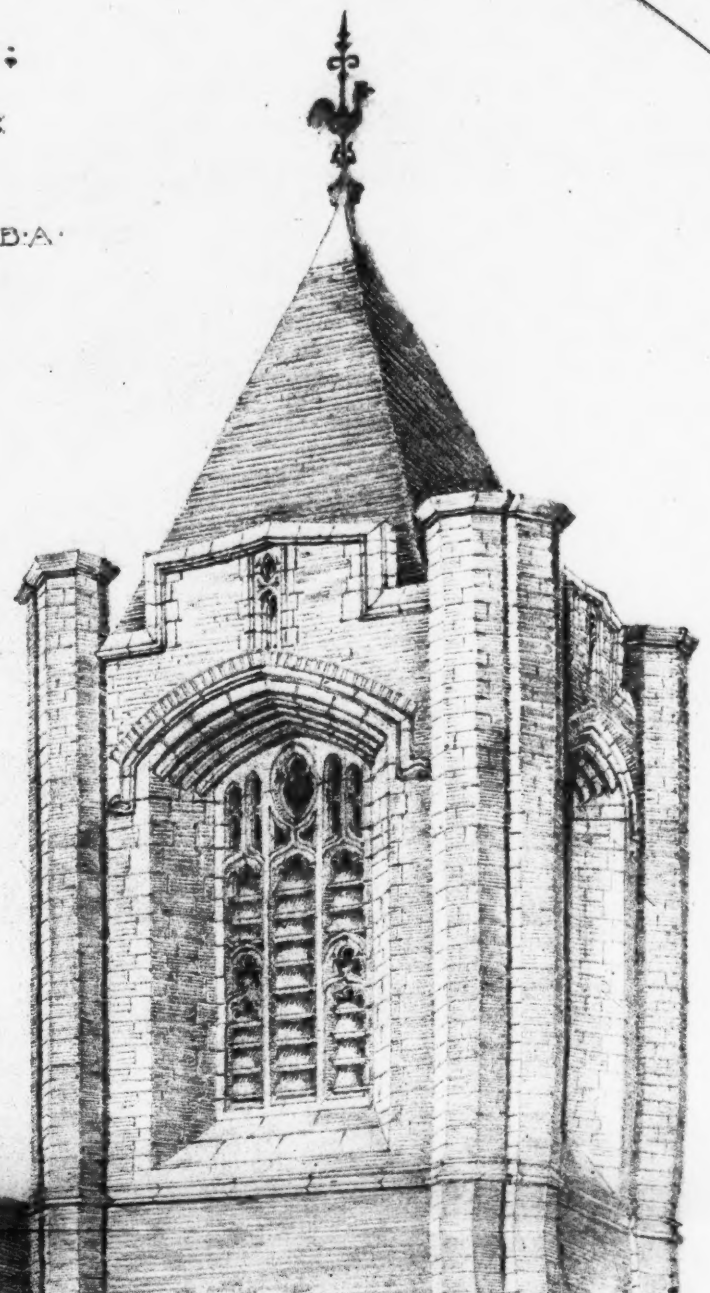


CHURCH AT BARNET

PROPOSED TOWER AND EXTENSION OF NAVE

J. H. EASTWOOD, A.R.I.B.A.
ARCHITECT

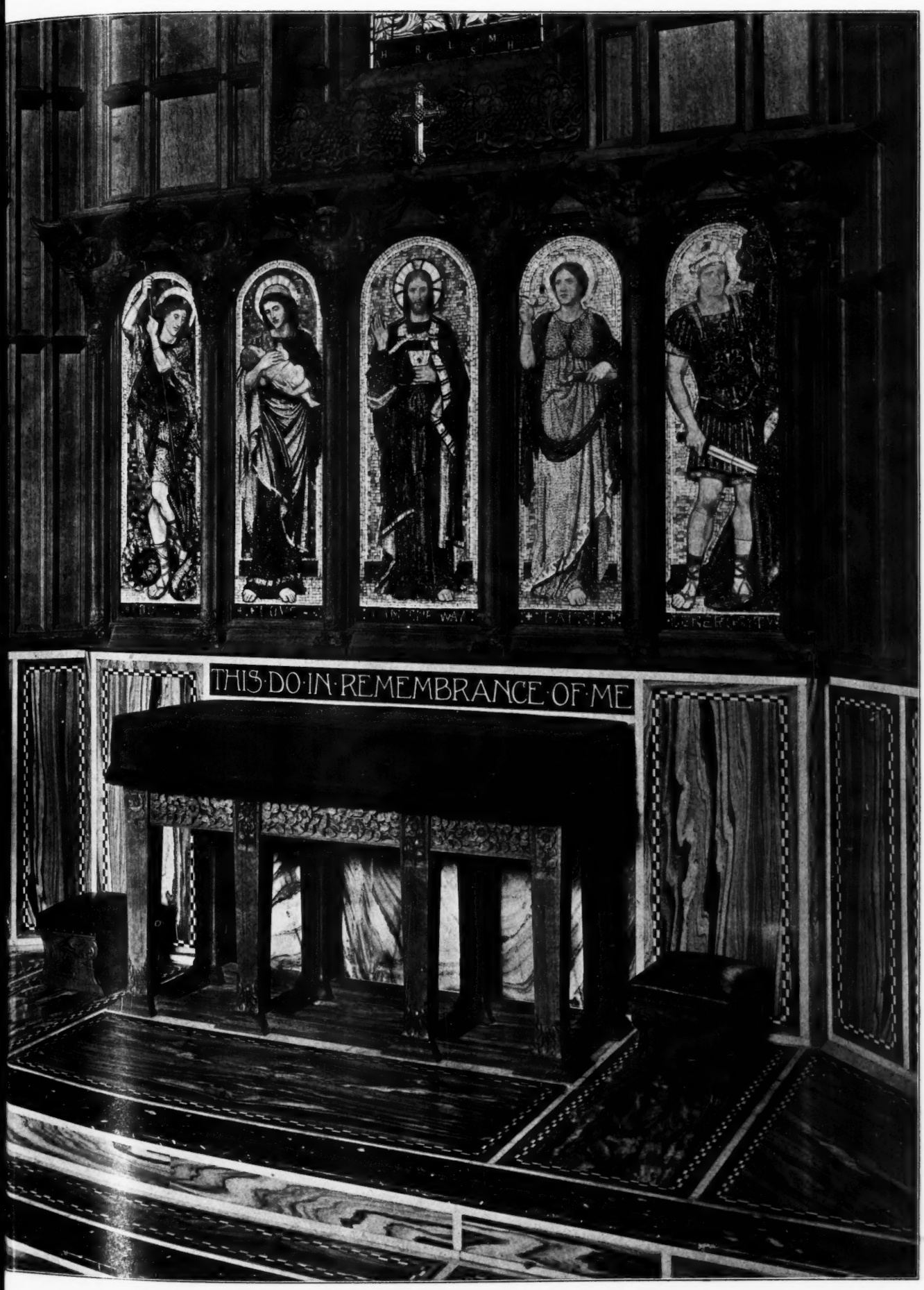




DECORATION OF CHANCEL, ESSEX CHURCH, NOTTING HILL GATE.—Mr. Ronald P. Jones, Architect.

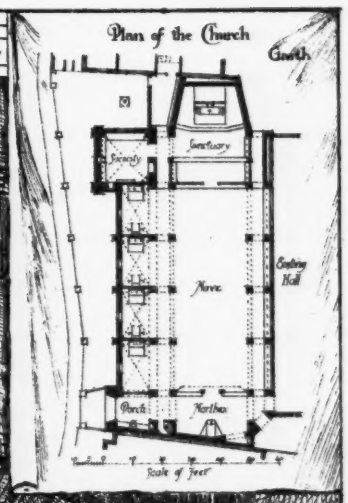
6, 1909.

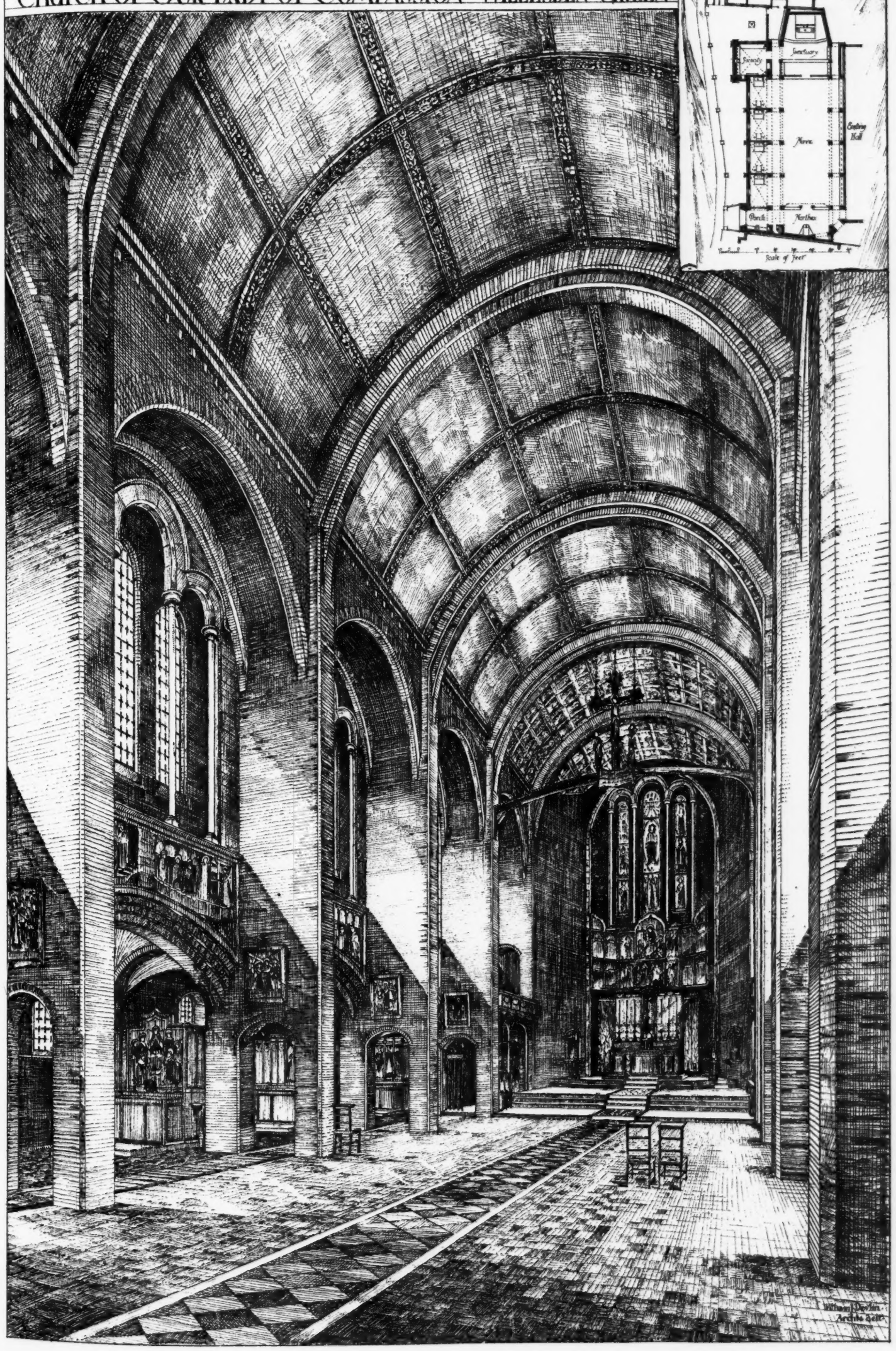
TTING HIL



TTING HILL GATE.—Mr. Ronald P. Jones, Architect.

Church of Our Lady of Compassion, Willesden Green.





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and winged cherubs' heads; and pierced or embossed panels of beaten brass are used in combination with the oak. The central feature is the mosaic reredos in five panels by Mr. Henry Holiday, who has here, for the first time, united *opus sectile*—a kind of glass tile, used for the faces and hands—with glass mosaic for the draperies and backgrounds. He has also revived the Byzantine use of mother-of-pearl of numerous shades, by which an extremely rich and luminous effect is obtained.

The four angels on the panelling represent the forms of worship, and the two between the apse windows (earlier works of Mr. Holiday) represent the legend of the "Dream of St. Louis."

The chancel is paved with squares and large panels of white and Cipollino marble, with inlaid borders, and a marble dado is carried round the apse, the text above the communion-table being inlaid in mother-of-pearl.

The scheme is completed by a massive brass pendant carrying six lanterns, and treated like the sounding-board, with cherubs' heads at the points of support.

The organ-case was given at an earlier date, and was not designed by the same hand.

The architect was Mr. Ronald P. Jones; the oak work was carried out by Messrs. Hatch, of Lancaster; the metal work by the Artificers' Guild; and the marble by Messrs. Farmer & Brindley.

DESIGN FOR A FACTORY, LIMEHOUSE.

THE drawing shows the original design for a factory building in Limehouse for the Sanitas Company, Ltd., which has been erected in a modified form to the same frontage, but reduced in height.

The design follows the special requirements of the internal use of the different parts. The buildings are in stock brick, with a high salt-glazed brick plinth along the frontages.

The construction of all the floors and the roof is of steel and concrete, the roof being asphalted.

The steelwork was supplied by Messrs. M. T. Shaw; Messrs. Reade, Reilly, & Jackson being the consulting engineers. The builders were Messrs. F. & F. J. Wood, of Mile End.

Mr. A. T. Bolton is the architect.

CHURCH OF OUR LADY OF COMPASSION, WILLESDEN-GREEN.

THIS is the interior view of a design for the church which will be built on a somewhat restricted site in Linacre-road. A design showing as large a church as possible, with side chapels, and to be built of brick inside and out, was desired with a way through to the existing low building at the back, now used as a temporary church.

This communication is effected by means of the "narthex," which can be screened off, and over which will be a gallery, with a room over the porch. The font would be placed in a small baptistry off the "narthex," and not in the centre, as shown. The house indicated on the plan adjoining the sanctuary has been acquired, and besides intercommunication at ground floor level, there will be in connexion with the house at first floor level an oratory over the sacristy, and opening into the sanctuary.

It is proposed to use stocks of varying tints inside and out, and stone very sparingly. The ceiling would be plastered with ribs, etc., of modelled work.

The drawing was exhibited at the last Royal Academy, and was referred to in our review at the time.

Mr. W. J. Devlin is the architect.

CHURCH RESTORATION, MICHAELSTON.—The reopening after restoration has just taken place of the Michaelston-super-Ely parish church. The work has been carried out in part by Messrs. Shepton & Son, builders, Cardiff, under the direction of Mr. Kempson, the Diocesan Architect, and (externally) in part by workmen on the Earl of Plymouth's estate.

Engineering Societies.

SOCIETY OF ENGINEERS.

At the meeting on Monday last Mr. J. S. Owens read a paper on "A New Test for Concrete," which described the origin and application of a new test for determining the end of the mixing process in preparing concrete. He referred to a weakness in our specifications, which devoted great attention to the nature of the ingredients, but did not assure thereby a sound concrete; the quality of which depended to a great extent on thorough mixing. The author then went on to describe the test which he had devised, the object of which was to enable the engineer to satisfy himself that mixing is efficiently done. The definition of properly mixed concrete was: "Concrete in which the various ingredients are as uniformly distributed as the size of the particles composing them will admit." The question therefore was how to determine when this uniformity of distribution had been attained. The principle on which the author's test is based was thus described: "If we take a few small samples from different parts of the heap of concrete, and if we can tell in some simple way whether all the samples contain the same relative proportions of stone, sand, and cement, we have a means of telling whether the concrete is properly mixed or not." The author's method of comparing the samples was simply to place each in a tall glass cylinder nearly filled with water, shake them up and allow them to settle. The rate of settlement of the cement in water was shown to be about thirty times as slow as that of the sand; which, in turn, was slower than that of the larger particles of stone; this caused the stones, sand, and cement to settle on the bottom in distinct layers. It was shown that the depth of these layers was proportional to the amount of the material present in the sample, and that in this way it was possible to tell whether each sample had the same amount of cement, sand, and stone.

Legal Column.

THE PATENTS ACT.

A very important decision under the Patent and Designs Act, 1907, has been given by the Comptroller-General in the case of the British Westinghouse Electric and Manufacturing Company, but the facts being somewhat complicated, can only be shortly referred to here. The case is reported in the *Times* of 12th February. The patent related to electric arc lamps. In the declaration filed in the case it was alleged that the patented article was manufactured to a large extent in the United Kingdom, the numbers of lamps so manufactured in the years 1905 to October, 1908, being given as 1,308, of which 274 remained at that date unsold, and it was stated that the sales were interfered with by the importation of unauthorised infringing lamps, and that proceedings to restrain this unauthorised importation were pending against the applicant, who was here seeking to have the patent revoked. In the evidence given, however, it appeared that a larger number of lamps than was manufactured here by the company had been imported from Germany by licensees of the company, the lamps so imported numbering between the years 1906-8 some 9,856.

The Comptroller held that the article was manufactured mainly outside the United Kingdom and not to an "adequate extent" in this country, and the meaning he attached to these latter words was, such an extent as would satisfy the demand in this country if no importation took place. He pointed out that the section would be a nullity if the proprietor of a patent, whilst manufacturing to an infinitesimal extent here, preferred to take royalties and enable foreign licensees manufacturing abroad to import here.

It is important to note that a point was also raised under the proviso to sect. 27. This proviso enacts that "no order shall be made which is at variance with any treaty convention, arrangement, or engagement with any foreign country," and it was argued that Article 5 of the International Convention of 1883 applied to the facts of this case. That Article provides that the introduction by the patentee into the country where the patent has been granted of objects manufactured in any States of the Union, shall not entail forfeiture; but, nevertheless, the patentee shall remain bound to work his patent according to the laws of the country into which he introduced the patented article. The Comptroller held that if the expression "patentee" meant the proprietor of the patent the Article had no application here where the licensees were importing it to this country, but that even if the licensees were regarded as "the patentees," then still the Article would not apply as they were not working the patent according to the laws of this country. More is likely to be heard on the subject of this proviso, which we have before pointed out introduces questions of difficulty into the Act.

THE LONDON BUILDING ACT.

A Metropolitan Police Magistrate has recently had to decide, in the case London County Council *v.* "Bon," Ltd., whether a structure, which was by the prosecution described as a "shelter," but by the defendant was asserted to be a mere "chattel" for advertisement purposes, infringed the building line within the meaning of sect. 22 of the London Building Act, 1894. According to the report of the case in the *Times* the structure in question appears to have been constructed of iron and glass over the front door at a height of about 12 ft., and to have been 7 ft. wide, projecting 4 ft. 10 in., and it was tailed into the front wall of the building. The magistrate held that it was so fixed as to form part of the main building, and infringed the building line, and he made an order for its demolition. Whether such erections are "structures" within the meaning of sect. 22 has been held to be a question of fact. In London County Council *v.* Civil Service Co-operative Society (the *Builder* Notes, July 11, 1903) the facts were much the same as in the above case, and the magistrate held the Act to have been infringed, and the Divisional Court refused to disturb that finding. In London County Council *v.* Illuminated Advertisements Company (the *Builder* Notes, May 21, 1904) the magistrate found that the erection could be removed at will without injury to the building, and dismissed the summons, and the majority of the Divisional Court affirmed his decision. As far as sect. 22 is concerned, little appears to be gained by appealing from the Courts of Summary Jurisdiction, unless it can be shown that the decision is against the weight of the evidence, and it must be remembered that the fact to be determined seems to be whether the erection is a "structure" forming part of the building.

With regard to "projections" there is, however, a point which has not been yet carried to the Court of Appeal. Some of these erections have been endeavoured to be dealt with under sect. 73 of the Act, but in the case of Hull *v.* London County Council (1901) this section was, by a Divisional Court, held only to apply to architectural or ornamental projections. In the Illuminated Advertisements case this decision was much questioned, but apparently again accepted in the case of London County Council *v.* Schewzek (the *Builder* Notes, November 11, 1905). The judges have, however, several times indicated that the opinion of the Court of Appeal might well be taken upon the interpretation which should be placed upon sect. 73.

BUILDING LINE AND THE BUILDING ACT.

Now that the case of London County Council *v.* Metropolitan Railway Company has been fully reported in the "Law

Reports," a further word or two may be said upon the decision. The facts will be found stated in the *Builder*, November 14 last, *sub nomine* Fleming and others *v.* the London County Council, and the question involved arose under sect. 22 of the London Building Act, 1894, in reference to the building line in the Euston-road.

The application to the Superintending Architect was to fix the building line of a certain section of the south side of the Euston-road. The main line of buildings had been erected under an old statute, 7 Geo. IV., c. cxlii., and complied with the provisions of sect. 140 of that Act. But a number of shops, most of them one-storied buildings, had been erected in front of this line of buildings, and the question was whether in fixing the building line these ought, or ought not to be taken into consideration. In 1855 the Metropolis Management Act was passed, which did not repeal the above Act, but contained restrictions on bringing buildings forward without the consent of the Metropolitan Board of Works. This was repealed by the Metropolis Management Act, 1862, sect. 75 of which Act provided for the building line, and enabled houses erected in contravention of it to be demolished unless the consent of the Board of Works had been obtained.

As to some of the shops they had been erected since 1862, and consent had been obtained; as to others there was no evidence when or how they had been erected or whether consents had been obtained, but the same witness who, after search, had discovered the consent or refusal for the erection of the other shops had failed to discover any orders as to these. The Superintending Architect had taken the original buildings as forming the building line. The Tribunal of Appeal had taken the frontage of the line of shops, and the Divisional Court affirmed the Tribunal of Appeal. It was contended by the appellants that whether consent had been given or not these buildings ought not to be taken into consideration, but the Divisional Court held that in the absence of any steps having been taken to demolish them, they must be taken to have been lawfully erected, and that it was a question of fact for the Tribunal whether they altered the building line, and that the proviso to sect. 22 of the London Building Act protects buildings lawfully erected.

It is important to observe that such a question cannot occur where buildings are brought forward by consent under the Building Act, 1894, for sect. 27 provides that buildings so erected shall not affect or alter the existing building line. It was endeavoured in argument to apply this section to the buildings in question, but the Court held this section was not retrospective, nor did the saving sect. 216 avail to render it applicable.

WATER SUPPLY.

An interesting point respecting the powers of water companies has been decided in the Chancery Division in the case of Attorney-General *v.* West Gloucestershire Water Company. The private Acts under which the company derived its powers defined certain districts in which they were to supply water, and these districts included the parish of Almondsbury, but excluded the parish of Henbury. In the parish of Henbury was a certain residential property, which adjoined the parish of Almondsbury at a certain spot. The water company, by agreement with the owner of this property, supplied him with water. They conducted their main to the boundary and about seven yards beyond it, where they erected a hydrant and meter. All the work in Henbury parish was carried out at the owner's expense. The Bristol Waterworks Company had powers to supply a district, including the parish of Henbury, but had not at the time in question carried their mains so far. The Attorney-General, at the relation of the Bristol Company, was applying for an injunction to restrain the defendant company from supplying water outside their district. The Court negatived the contention that such a supply was merely incidental to the powers of the Gloucestershire company, or that the method of supply by meter could make any difference; but the question of interest decided was what was intended by the expression "a supply of water," that is, when and where does the "supply" take place? The Court, following a decision relating to gas, held that the supply takes place at the terminals at which the consumer takes possession of the water and converts it to his own use. In this case, even the meter was outside the defendant's district, and in one of the Acts it was expressly stated that the supply must be for use within the district, so on all grounds the injunction was granted.

THE FACTORY ACT.

A point decided under the Factory Act, 1901, in the recent case of Verney *v.* Mark Fletcher & Sons, Ltd., may shortly be noted. Sect. 146 relates to summary proceedings for offences and provides that the information shall be laid "within three months after the date at which the offence comes to the knowledge of the inspector." On March 12, 1908, the inspector had visited a factory and found the flywheel of an engine not sufficiently fenced. The factory owner or occupier was ordered to fence it. On July 1, 1908, the inspector again visited the factory and found the flywheel still insecurely fenced. He laid an information on July 22. The magistrates held this to be out of time and dismissed the information, but the Divisional Court held that the offence which was charged in the information was an offence alleged to have been committed on July 1, and that the proceedings were in time. It is to be observed that the statute does not say "within three months after the date at which the offence *first* comes to the knowledge of the inspector," and such an interpretation of the section would compel an inspector to take proceedings in every case where his directions were not carried out within three months, as if he did not do so the offence could be continued for ever with impunity.

EXTRAORDINARY TRAFFIC.

Two cases in the Court of Appeal have recently been decided on the effect of sect. 12 subsect. (1) (*b*) of the Locomotive Act, 1898. This section, which has been the source of constant litigation, provides that proceedings for the recovery of extraordinary traffic expenses "shall be commenced within twelve months of the time at which the damage has been done, or when the damage is the consequence of any particular building contract or work extending over a long period" not later than six months after the completion of the contract or work. Both cases related to extraordinary damage done in carrying out the construction of reservoirs under what was admitted or found to be "a particular building contract"; in both cases no question arose as to the extraordinary nature of the traffic, so the sole question to be determined was whether the proceedings had been taken in time.

In the first case, Carlisle Rural District Council *v.* Mayor, etc., of Carlisle, the contract included the construction of a reservoir and the laying of certain mains. The laying of these pipes and the work connected therewith occasioned most of the damage, and as this branch of the work was completed more than six months before the writ was issued, the judge excluded that portion of the damages claimed. The Court of Appeal reversed this finding and held that under the contract each class of work should not be regarded separately as distinct operations, but that the time only ran from the completion of the actual work of construction under the contract.

The second case, Reigate Rural District Council *v.* Sutton District Water Company, raised a similar point. In that case a reservoir was being constructed under a contract which comprised the construction and maintenance for six months after completion of a watertight covered reservoir. The plaint was issued November 1, 1906. Water was let into the reservoir shortly after February 22 in that year, but cracks subsequently appeared, and the County Court judge held that the work was completed in May, the time at which it was rendered watertight. The defendants contended that the work which caused the damage was completed by February 6. The Divisional Court decided that the judge had misdirected himself, but the Court of Appeal held there was no misdirection and that the work of construction was completed when the reservoir was made watertight and that time ran from that date. The real difficulty in these cases is the determination of the question of fact when is the contract completed? The above decisions have made it clear that the isolated operation which caused the damage is not only to be regarded although there are expressions in the judgments delivered by the Court of Appeal in the case of Lancaster Rural Council *v.* Fisher and Le Fanu (the *Builder* Notes, September 14, 1907) which have been understood in an opposite sense. In that case also there was a maintenance clause in the contract but the work having been completed, this clause was held not to suffice to extend the time for commencing proceedings. The law does not seem very satisfactory, as it is somewhat difficult to see how it applies equally in all cases. For instance in the Reigate case actual construction was being undertaken under the contract after the original completion of the work, and it may be assumed that this was being done under the maintenance clause, but supposing the defects had not appeared within six months of the completion of the work, the claim would have been barred according to the Lancaster case. It is the second alternative introduced into sect. 12 of the Locomotives Act in favour of building contracts or work extending over a long period which causes the litigation, and this section requires amendment.

The Court of Appeal in the case of Geirrionydd Rural District Council *v.* Green and another have again considered what amounts to "extraordinary traffic." The damage complained of arose from the cartage of timber along a narrow road which was customarily used for agricultural purposes and loads of light weight of about one ton. The County Court judge had found that timber hauling was a recognised industry in the district, although it was carried on very intermittently along any particular road, and that the haulage was conducted by means of timber wagons of the recognised type, but that the weight of the wagons far exceeded the ordinary traffic, and had amounted to 65 tons in fifteen days. Timber haulage had last been carried on on this road thirty-five to forty years ago. It was contended by the defendants that, timber haulage being a recognised industry, either the roads should be constructed to stand it, or as it took place at such long intervals apart, the road authority should bear the expense of making good the damage. The County Court judge found the weights to be excessive and the traffic to be extraordinary, and both the Divisional Court and the Court of Appeal refused to disturb this finding of fact and agreed with the judgment. The Court of Appeal attached weight to the fact that similar traffic had been carried on thirty-five or forty years ago without causing damage, as pointing to the fact that this traffic was not ordinary and caused unreasonable damage. The case accords with the principles laid down in recent decisions, which will be found explained in these columns December 5, 1908, and September 5, 1908.

BUILDING BY-LAWS.

A case of some interest in relation to building by-laws in rural districts was reported in the *Times* recently. The

Duke of Northumberland was summoned for erecting a building of wood in contravention of the by-laws of the Hexham Rural District Council. The building in question was a fish hatchery, and apparently a keeper was intended to reside in it. The building was well constructed and lined with asbestos, and was in a rural district and 250 yds. from the village. The plans had been submitted to the Rural Council, but the Council had refused to sanction them on the ground that their by-laws prohibited wooden buildings. The building was, however, erected, and the defence was that the Duke had proceeded with the building not out of disrespect to the Council, but as a matter of principle, and as a protest against the action of the Council in neglecting to adopt by-laws suitable to rural districts. The by-laws in question were suitable for urban districts, but were applied in eighteen parishes of which but six were urban or semi-urban. The Bench dismissed the summons. In case in certain quarters it may be considered that the exalted rank of the defendant enable the by-laws to be ignored, it may be as well to refer to a decision of a Divisional Court in the case of Salt *v.* Scott Hall (1903), where the facts were very similar, and the Court held that, although the by-laws were not invalid, the justices under the Summary Jurisdiction Act, 1876, had power to dismiss the summons if the circumstances justified such a course. The true lesson to be learnt from the case is that the local authorities should adopt the model by-laws suitable for the districts and avoid vexatious proceedings.

WATER BOARD'S CHARGES FOR EXECUTING REPAIRS.

A small but interesting point has recently been decided in the Westminster County Court in the case of The Metropolitan Water Board *v.* The Imperial Property Investment Company, under sect. 71 of the Metropolitan Water Board Act. That section gives the Board power where, by reason of any injury to or defect in any communication-pipe any waste of water or injury or risk of injury to person or property is caused or is likely to be caused, to execute such repairs as they may think necessary without being requested to do so, and the expense incurred in executing such repairs shall be recoverable as water rates in respect of the premises are recoverable. After excavation a leak was found in the pipe supplying the defendants' premises, and the Board having given the defendants notice, the defendants, by their own servants, repaired the leak, and the Board reinstated. The claim was for the expenses of excavating and reinstating, and the County Court judge held those expenses to have been incurred in and about executing the repairs, and gave judgment for the Board, but gave leave to appeal.

Competition News.

ELLAND SECONDARY SCHOOL.

A special meeting of the Governors of the Elland and District Secondary School was held on the 22nd ult. to consider the suggestions of the West Riding County Council for the amendment of the particulars of conditions of competing architects for the plans of the West-Riding Council. The county authorities suggest the desirability of definitely stating that a competent non-competing architect, in conjunction with the County Inspector of Higher Education, would assist the Governors in adjudicating the plans of the various competitions, and this the Governors decided to do. On a question of cost the County Council had suggested that 6,500*l.* was a very low figure, and the Governors decided to increase this amount to 7,000*l.*, and allow 10 per cent. margin. The competition is open to the West Riding. A meeting of the governors of the proposed secondary school at Elland was held on Tuesday, when letters from the Halifax Architectural Society and the Leeds and Yorkshire Architectural Society were read, protesting against the unsatisfactory nature of the conditions relating to the competition, particularly with regard to the remuneration proposed. The Societies recommended their members to refrain from competing. The Leeds Society also objected that the stipulated cost of 7,000*l.*, including professional charges, was totally inadequate for the purpose. A number of individual architects returned the particulars and conditions relating to the competition on the ground of "unsatisfactory conditions" and the fact that the proposed remuneration to the successful architects was "below the scale of charges recognised by the profession." After a long discussion on the matter the governors decided that the scale of remuneration should be increased to 6*l.* per cent.

WESLEYAN CHURCH AND ADDITIONAL BUILDINGS, LYNTON (DEVON).

The awards in this competition, in which sketch plans and designs with a statement of the approximate cost were asked for, have been decided as follows:—1st, Messrs. Latrobe & Weston, 44, Corn-street, Bristol, who have been selected to carry out the work, no premium attaching to the first place; 2nd, Mr. Alec W. Percival, 12, George-street, Plymouth, to whom a premium of 7*l.* 7s. has been awarded; 3rd, Mr. Allen T. Hussell, Market-square, Ilfracombe, to whom a premium of 5*l.* 5s. has been awarded.

NEW ASSURANCE OFFICES, LEEDS.

The Directors of the Pearl Life Assurance Company, acting upon the advice of their consulting architect, Mr. Percy Monckton, F.R.I.B.A., F.S.I., have accepted the design of Mr. William Bakewell, of Leeds, in the competition for their new premises in that town.

Correspondence.

REGISTRATION.

SIR,—I have read Mr. Needham Wilson's paper, "The Press and Architecture," with much interest.

I see registration is again trotted out as the great "heal-all." At its best it seems to me that registration would do no more than make an architect's *professional* status a little more defined—and I gather that neither Mr. Wilson nor any of the speakers are aiming at that. Our *professional* position is quite defined enough—what we want is a recognition of the art of architecture and of ourselves as artists, and there is only one way of getting this recognition, and that is by doing good work.

Mr. Wilson admits that the painter and sculptor both get full recognition. Presumably this is on account of the excellence of their achievements. I do not think they are registered members of a close profession. The truth of the matter is that good work "in bulk" has only been done comparatively recently, and naturally the daily Press are only just beginning to discover the fact. If anyone doubts this let him look through the back volumes of the professional journals—for the seventies, say. I do not suggest that there was nothing good being done thirty or forty years ago, but, although it was good in quality, it was small in quantity compared with the mass of undistinguished work that was current then. May I say, too, that I think the competition mania has done much to lower the status of the architect? Public bodies have grown to consider it necessary to have a competition amongst architects in exactly the same way as they invite tenders for bread and potatoes! If a painter or sculptor is to be employed he is commissioned direct, and a mature man with a record of good work behind him is chosen. Nowadays an architect, except in a few rare instances—no matter what his record or reputation may be—must either be one of a hundred and fifty competitors, or stand aside just when he might be doing his finest work.

I feel pretty certain that if we will only set ourselves to do the best work we can, we need not worry about recognition, it will come naturally when it is deserved. The unqualified and incompetent men will drop out of the running just as they do in other callings.

ERNEST NEWTON.

*** We quite agree with Mr. Newton that there are far too many architectural competitions for small works. But sketch model competitions in sculpture are not unknown in England; and in France most public monuments and almost all decorative paintings for public buildings are selected as the result of competitions. We are not necessarily defending the system; we merely point out the facts.—ED.

ORIGINALITY AND TRADITION.

SIR,—In reference to your interesting remarks concerning the architectural merits of the recently-executed Royal Insurance Building, Piccadilly, and the United University Club, Pall Mall, may I quote a few lines relevant to the subject, written by that masterly exponent of the ethics of architectural design, Edward Lacy Garbett, who, in Chapter VI. of his "Principles," remarks:—

"At length we are arrived at that state in which there is no school, nor ever can be. Henceforth every (real) artist must be a school in himself.

In proof of this, observe the regular advance, culmination, and decline (if he lives long enough) of every modern artist's manner. Of course, this is visible only to those of cultivated taste, perhaps only to architects themselves. Now, architects are not a class famous for unanimity. If they agree on a point, there must be some reason for it. But I think all those of acknowledged taste and culture will be found to agree in this. Ask them each, separately, to review and give a general opinion on the whole series of the works of some brother architect of considerable length of practice, either living or lately dead; I doubt whether they will ever differ, either as to the fact of a regular progress and decline, or as to the precise work at which the one ended and the other began—a point as distinct as the culmination of the Gothic or any other style."

Further on he remarks:—

"Novelty-hunting, and the false use of precedent, are the Scylla and Charybdis between which the many, and the architects of the many, are for ever destined to be wrecked. It is possible, however, to fall into both at once."

And again:—

"We cannot too strongly instil into the reader that, while novelty is in itself neither a beauty nor a fault, but totally immaterial, novelty sought for its own sake is the destruction of art. The end of art is truth. The instant it proposes any other aim (be it novelty or to 'catch the spirit' of a particular time or place, *i.e.*, mimicry, or any other fancy), it ceases to be art, and what is not art is not architecture. Aim at catching the spirit of all true architecture, not that of any one style—still less of a notoriously false style."

C. D. H.

THE LATE MR. COLE A. ADAMS.

SIR,—With sorrowful regret I note in your issue of this week the death of an old friend and comrade, in the person of Cole A. Adams. My introduction to him was at Yeovil in 1883, when the Architectural Association visited that town for its annual excursion, he being the President for that year, and what a delightful cicerone and leader he made during that memorable week I well remember. In those early days of our excursions it was considered the privilege of the chief to give a short description of each building visited, and point out desirable parts to study; but now, alas, this useful introduction has ceased to exist! Sketching and measuring examples of good work he strongly advocated, and I, with others of the then younger members, owe him a deep debt of gratitude for his sound practical advice and sympathetic counsel. His characteristic manner of imparting knowledge, and in many instances with charming and dramatic effect, made him appreciated by all who had the good fortune to know him.

W. TALBOT BROWN.

Dybdale, Wellingborough.

THE "DESIGN CLUB" CARD.

SIR,—I wonder if your serious and excellent paper will indulge me while I comment on the "design" that the Design Club have selected for their sign manual? My first glance at it moved me to laughter, and again to surprise that artistry should have so little hand in illustrating the aim of the Club. The "Head, Heart, and Hand" would seem to have been used to small effect if the layman is not instantly attracted by something beautiful, consonant, and consistent with the object of the

Club; something that will stir his imagination and heart, that will lift his mind to a perception of an ideal beyond his everyday hopes. But the design carries none of these things; one is thrown back on a symbol without any ingenuity in the bringing of its parts together, without spacing, composition, or balance in filling its circle. It is an easy thing to strike surprise and astonishment by our efforts to elevate and instruct, but to be loyal to tradition, faithful to the infinite laws that know no retrogression, seeking to convey conviction by a new statement of an old truth, would seem to require a simpler, more single-hearted observance and appreciation of the rules that govern design in art.

I hope I have not stated my case too strongly, but I feel the matter in hand, and I am sure a large-hearted Club will give me a kindly hearing.

(MRS.) G. A. HUMPHREYS.

BOOKS RECEIVED.

THE CONCRETE INSTITUTE: Transactions and Notes. Vol. I: Part I. (Offices of the Concrete Institute.)

THE SCIENCE OF PICTURE-MAKING. By C. J. Holmes. (Chatto & Windus. 7s. 6d.)

ART APPLIED TO DECORATION.

AT a meeting of the Incorporated Institute of British Decorators, held at Painters' Hall, Little Trinity-lane, on Monday last week, Mr. W. Stewart-Greene gave an address on "Art Applied to Decoration," Mr. J. D. Crace, President, presided.

Mr. Stewart-Greene said his paper would have been more properly called a short history of art. In all parts of the world there was a special order of building which from the climate and requirements the natives had adopted as suitable, and the individuality of the people was shown in the style of decoration. It was adhered to by successive generations and taken by them into any country or place where they might have settled in later. Thus they could tell the different races who had come and settled and conquered. They also saw that decorative features and the essential principles of all architecture in one age or country had influenced to a great extent the succeeding nations. Thus Egyptian art influenced the Assyrians, and they in their turn influenced the Greeks, although it was difficult to trace the elaborate forms and decorations of the former in the simple and refined art of the latter. The influence of Greek on Roman art was very recognised. The impulse to decorate useful objects was one common to all mankind, and in the works of the early schools of art they often met with the first thoughts expressed by that very undeveloped means, and yet completely. Decoration must not interfere with the utility of the object decorated, but must rather express, or at all events be conformable, in spirit as in shape, to that utility. Giving to this same principle a wider application, they might deduce from it the law which might be applied to all art whatsoever, that the material in which a work of art was executed must to some extent govern the style of the work. There was one style suitable for plaster, another for woodwork, and another for fresco painting, and, in fact, many other materials. Some of the world's best decorative art had been in the decoration of walls and ceilings. Raphael's best work was the wall colouring of a suite of apartments in the Vatican, and many of his cartoons were made for tapestry. Michelangelo's best work was the decoration of a ceiling in the Pope's private chapel, while Titian and Veronese put some of their best work on the outside of the walls of houses in Venice. All harmonies of colour depended for their vitality on the action and helpful operation of every particle of colour they consisted of, and no colour harmony was of high order unless it involved indescribable tints. It was the best possible sign of a colour when no one knew what to call it. He was afraid that very few architects or decorators gave enough thought to colour or design. In the past there had been a great gulf fixed between the architect and the decorator, but it was generally recognised now that the artist and the craftsman could not rightly be parted from one another without serious injury to both. Constructive design had a mission to fulfil and a purpose to serve apart from decoration. Ornament was a matter quite apart from constructive design, and was excusable and allowable only so far as it fulfilled its own mission by being beautiful. This quality of beauty was again only to be considered in its suitability to the material from which it sprang, to the place it was to occupy, and the purpose it was intended for. As much as possible the windows of houses should be glazed in a style suitable to the architecture of the building or its surroundings; but one often saw leaded glass panels of a very ornate design put into windows of houses which were built only eighty to 100 years ago, and large squares of glass put into so-called modern Queen Anne villas. It was a great pity that such mistakes should be made by both architects and decorators. The author referred to the case of an old house he was doing up in Queen Anne's-gate, the interior of which had the original Adam's ceilings, cornices, and friezes, but the decorator who did up the house some few years ago thought it correct to cover the walls of the principal rooms above the surface moulding with a raised Tynecastle paper, covered the dado with a Japanese paper, and in most of the rooms removed all the good old marble mantelpieces and substituted wooden ones of a very un-Adamlike design. Too much pattern was used by the ordinary architect or decorator; but he believed that with the present reawakening of the handicrafts connected with the technical schools design of colouring would improve, and they would have beautifully decorated houses. The lecturer dealt at some length with wall-papers, and stated that flock wall-paper was invented about 1634. There was little doubt but that Chinese wall-papers were used in the time of Queen Anne. Machine-made papers were first mentioned as being made about 1837. For some years stencilled wall coverings, both on paper and canvas, had been used with satisfactory artistic results, but there was no money in it. From early times down to about the XVIIth century, fresco painting was much used. Having touched briefly on tapestry, silks, and velvets, he concluded by asking "What is Art?" Everybody, from the big stores to the art student was talking about it, writing about it, and more or less interested in it, and he sincerely hoped that in the near future they would arrived at a solution of the problem.

Considerable discussion followed, which touched to a great extent on the history of wall-papers.

The Chairman remarked that he had specimens of flock on gilt leather which were taken from Penshurst, and dated from about the end of the Stuart's reign. There was no doubt that well before 1650 wall-papers were being made for those who could afford them. The impulse to decorate went back an immense way, and he was recently told of decorations in two colours found in a cave which was done in the Paleolithic age. In the Palace of Knossus they found decorations and drawings, and the costumes would not be out of place in Regent-street to-day.

LONDON AND DISTRICT BOROUGH COUNCILS.

Bermondsey.—A loan of 5,000*l.* is to be taken up from the London County Council for repairing Grange-road, recently damaged by a gas explosion. In connexion with this work Mr. Arthur F. Wrighton, 26, Budge-row, Cannon-street, has been appointed quantity surveyor at 2 per cent. on the amount of the lowest tender, 1½ per cent. on additions, and 1 per cent. on omissions.

Bethnal Green.—The Works Committee report having rejected proposals by the Shoreditch and Stepney Borough Councils to supply electrical energy in the borough. The Committee are to take other steps and to obtain schemes from authorised undertakers.

Camberwell.—The proposed new road from Newlands to Brockley has been under the consideration of the Works Commitee and the General Purposes Committee, who have decided in favour of the Borough Council offering to pay one-sixth of the total estimated cost, but not exceeding 4,500*l.* It is further proposed that the Lewisham Council be asked to meet representatives of Camberwell on the subject, and also that the London County Council be requested to contribute. The matter, however, has still to be considered by the Finance Committee, and also by Camberwell Council as a whole. The uncompleted portion of Turney-street is to be paved, at an estimated cost of 2,078*l.*

Hackney.—At the meeting on February 25 the Public Libraries Committee drew attention to the fact that, according to a resolution passed in September last the Council had legally committed itself to Dr. Carnegie, and morally to the ratepayers of Dalston, Clapton Park, and Homerton, to build two branch libraries. The Committee accordingly recommended that they be authorised to instruct the architect to prepare plans for the erection of same. The consideration of the matter was postponed. The work of paving Castlewood-road, which is estimated to cost 1,600*l.*, is to be put in hand shortly. The northern portion of Leabourne-road is to be paved and drained, the approximate cost being 550*l.* As a result of negotiations with the London County Council, seventy-eight gulleys are to be reconstructed to the Borough Council's pattern, the cost being 819*l.* The sum of 150*l.* is to be spent in sewage works in Parkholme-road. Permission was granted to Mr. H. B. Mitchell to construct 1,889 ft. of 12-in. pipe sewers in two streets to be formed between Spring-hill and Craven-walk, and to Mr. D. S. Barclay to construct 500 ft. of 9-in. pipe sewer in a proposed street to lead northward from Craven-walk.

Hampstead.—At the meeting of the Borough Council on February 25 the Works Committee recommended that Adelaide-road, from Eaton-place to Upper Avenue-road, be paved with wood at an estimated cost of 4,408*l.* The consideration of the matter was postponed, as was also a recommendation to pave Upper Avenue-road with wood, at an estimated cost of 735*l.* In connexion with the electrification of the tramways, the sides of Agincourt and Constantine roads are to be paved with wood, at a cost of 1,421*l.*

Paddington. — The Borough Surveyor's Department is to be reorganised, and the General Purposes Committee have agreed to certain increases of salary. The Council has passed plans submitted by Messrs. Forsyth & Maule for the erection of 12, Irongate Wharf-road.

Southwark.—At the meeting of the Borough Council on the 3rd inst. it was resolved to repave fourteen streets during the coming financial year, at an estimated cost of 12,210*l.* Conditional approval was given to plans lodged by Mr. W. Egerton, architect, 12, Queen's-road, Erith, Kent, in regard to the erection of an addition to the premises of the Maltina Bakeries, Ltd., in Webber-street.

Tottenham.—The Engineer is preparing a plan and estimate for the making-up of Ashfield-road.

Walthamstow.—A Special Committee has been appointed by the Urban District Council to consider matters in relation to a proposal to build a new high school for girls. Sanction has been received from the Local Government Board to borrow 877*l.* for electric mains and house services and 419*l.* for meters. The following plans have been passed:—Messrs. W. Tyler & Sons, six houses, Marten-road; Mr. W. Banks, rebuilding offices, 199, Hoe-street; Mr. F. J. Wheeler, four houses, Howard-road; Mr. J. Wilson, five shops, Hoe-street Bridge; Mr. R. Laver, four houses, Forest-road.

Westminster.—The sewer in Red Lion-yard, Mayfair, is to be reconstructed at a cost of 95*l.*

Willesden.—The Works and General Purposes Committee have under consideration the proposed erection of a temporary fire-station in Harlesden-lane, which will involve a total expenditure—including provision of machines and appliances—of 1,265*l.* The Engineer has prepared plans showing the proposed route of an intercepting sewer from Wesley-road to Kilburn-lane for the discharge of the Brent sewage into the London sewers. These plans have been approved by the Works Committee, and the Engineer has been authorised to proceed with the finished drawings in connexion therewith. The length of sewer in question is to comprise the first contract in connexion with the drainage of the Brent district into the sewers of the metropolis. Borings are to be sunk along the route in order that intending contractors may be cognisant of the nature of the ground. Musgrave-road, Dudden-hill, is to be made up.

Wimbledon.—At the Council meeting on March 3 plans and estimates, submitted by the Borough Surveyor for making-up Farquahar-road and a portion of Richmond-road, at a cost of 394*l.* and 776*l.* respectively, were approved. It was reported that in deference to local opposition Mr. R. A. Hinds, the architect for a proposed "pension" in Park-road, had decided to omit one or more floors in order to reduce the height of the structure. Amongst the building plans passed were the following:—Mr. C. A. Denny, three houses in Faraday-road; Mr. F. G. Aldis, conversion of Nos. 1 and 3, Stanley-road into shops; Messrs. Price & Price, workshop at the rear of 22, St. George's-road.

COMPREHENSIVE SCHOOL BUILDING SCHEME.

AT the Education Committee of the London County Council last week a comprehensive scheme of school building, alteration, and improvement to be carried out during the next eighteen months was passed. Estimates were passed for the expenditure of 593,000*l.* from April 1, 1909, to March 31, 1910; and 313,490*l.* from April 1, 1910, to September 30, 1910.

During 1904-5-6 school building operations were to a great extent suspended pending the consideration of the Council of the general question of the provision of additional elementary school accommodation in London, and consequently the expenditure on capital account for that period was considerably below the normal. In June, 1906, the Council approved a comprehensive scheme for providing further school accommodation; but some revision was necessitated by the results of further negotiation with the managers of non-provided schools, and in April, 1908, the Council arrived at final decisions in practically all cases. The full effect of these decisions, it is anticipated, will be felt during the coming financial year. It is also anticipated that building operations will be pushed forward with greater vigour than in the past.

Details of the proposals for the ensuing year are subjoined:—New Council schools, 200,000*l.*; additions and alterations, 140,000*l.*; modernising and improving, 30,600*l.*; new schools for blind, deaf, and defective, 39,400*l.*; additions to special schools, 7,760*l.*; industrial schools, 3,950*l.*; secondary schools, 87,650*l.*; training colleges, 14,260*l.*; technical institutes and schools of art, 40,360*l.*; divisional offices, 7,650*l.*; general provision, 21,000*l.*

PROJECTED NEW BUILDINGS IN THE PROVINCES.

ABERDEEN. — Addition, Royal Infirmary (15,000*l.*). Messrs. Kelly & Nicol, 367, Union-street, Aberdeen.

Abergele.—Isolation hospital. Mr. M. R. Jones, Abergele and Partsarn.

Aston Manor.—Underground convenience (400*l.*). Mr. F. Richardson, Borough Surveyor.

Barnard Castle.—Refuse destructor. Mr. F. D. Stuart, architect, Barnard Castle.

Barnoldswick.—Weaving-sheds. Mr. Pickup, architect, Burnley.

Barrow.—Additions, Oxford-street Centre. Mr. A. Race, architect, Barrow-in-Furness.

Belfast.—Additions, Municipal Technical Institute. Mr. R. Stephenson, architect, Royal-avenue, Belfast; Messrs. R. Curry, Ltd., builders, University-street, Belfast.

Bristol.—Extension, public museum. Mr. T. Yabbicombe, City Offices, Bristol.

Bristol.—New factory, for Messrs. Robinson & Co., seed merchants.

Cambridge.—Additions to pumping-station, Mr. J. Julian, architect, Guildhall, Cambridge; workmen's dwellings, Mr. J. Julian, architect, Guildhall, Cambridge.

Cheltenham.—Lavatories (600*l.*). Mr. J. S. Pickering, Borough Engineer, Town Hall, Cheltenham.

Choppington.—New school (6,500*l.*). Mr. Forrest, Moot Hall, Newcastle-on-Tyne.

Colwyn Bay.—Lavatories and conveniences. Mr. W. Jones, architect, Colwyn Bay.

Coventry.—Wesleyan church. Messrs. Crouch & Butler, Newhall-street, Birmingham.

Croydon.—Six houses, Aurelia-road. Mr. C. E. Banks, builder, 4, Belmont-hill, and 8, Myron-place, Lee, S.E.

Cwm.—Additions, St. Paul's Church. Mr. E. Vaughan, architect, Dumfries-place, Cardiff.

Dalton.—Mission hall. Mr. L. Maginton, architect, North John-street, Liverpool; Messrs. J. & E. Chappell & Co., builders, Liverpool.

Dorchester. — Underground conveniences, South-street. Mr. W. P. Harrison, Town Hall, Dorchester.

Dudley.—Skating-rink, Trindle-road, Mr. William Harper; twenty-four dwelling-houses, Park-road, Mr. J. T. Briggs.

Eastbourne.—Six houses, Archery-road, Mr. E. Littleton, builder, Firle-road, Eastbourne; additions and alterations and garage, South-street, Mr. A. A. Oakden, architect, 10, Cornfield-road, Eastbourne; alterations to garage, Lushington-mews, Mr. A. A. Oakden, architect, 10, Cornfield-road, Eastbourne; additions to warehouse, rear of Sussex-gardens, Messrs. Mitchell & Ford, architects, 7, Gildredge-road, Eastbourne; additions to laundry, 7, Upwick-cottages, Messrs. Mitchell & Ford, architects, 7, Gildredge-road, Eastbourne; additions to ice works, Mr. A. Chander, architect, care of Eastbourne Ice Company, Beach-road, Eastbourne.

Edinburgh.—Almshouses (10,000*l.*). Mr. H. Kerr, architect, 62, Hanover-street, Edinburgh.

Egremont. — Wesleyan chapel. Mr. S. Ellison, architect, Sir Thomas-street, Liverpool.

Eton.—House, Gerrard's Cross, for the London and County Investment Company, 11, Queen Victoria-street, E.C.; new dairy at corner of South Park and Oak End Waye, Gerrard's Cross, for J. H. Maggs, 17, Briardale-gardens; showroom and workshop at Iver, for Mr. W. H. Baker.

Grangetown.—Church. Mr. C. H. Fowler, architect, "The College," Durham.

Haverton Hill.—School (4,500*l.*). Mr. W. Rushworth, Architect, Shire Hall, Durham.

Helsby.—Additions, church. Messrs. Douglas & Minshull, Chester.

Hereford.—Cottages. Messrs. Groome & Bettington, architects, Hereford; Messrs. W. P. Lewis & Co., builders, Hereford.

Hounslow.—Four dwelling-houses with shops, Bell-road, Messrs. A. Butler & Sons, builders, Staines-road, Hounslow; laundry, London-road, Messrs. Jose & Francis; twenty-seven houses, Stanley-road and Livingstone-road, Mr. A. C. Stephens.

Isleworth.—School, Twickenham-road. Mr. H. J. Barker, Secretary, Heston and Isleworth Education Committee.

Jarrow.—Additions, Masonic Hall. Mr. J. H. Morton, architect, 50, King's-street, South Shields.

Kidgrove.—School (2,000*l.*). Mr. A. Wood, architect, Burslem; Mr. W. Cook, builder, Burslem.

King's Lynn.—Destructor at electrical works. Mr. J. H. Webb, engineer, King's Lynn.

Liverpool.—Additions to St. Edmund's School. Messrs. Powell & Worthy, architects, Lord-street, Liverpool.

Longsite.—Wesleyan church (1,700*l.*), for the Trustees.

Meathorp.—Sanatorium. Mr. J. Hulton, architect, 22, Highgate, Kendal.

New Lambton.—School (4,000*l.*). Mr. W. Rushworth, Architect, Shire Hall, Durham.

Newport (Salop).—School (5,000*l.*). Mr. H. E. Wale, architect, 11, College-hill, Shrewsbury.

Northampton.—Additions to factory, Clarke-road, for Brook Manufacturing Company; new parochial building, Craven-street, for the Trustees of St. Lawrence's parochial buildings; new music-hall and shops, Marefair, Horse-market, and Pike-lane, Mr. Mark Bromet, builder, 12A, Charterhouse-square, E.C.

Ogmore Vale.—Workmen's Institute (8,000*l.*). Mr. Watkin Williams, builder, Cardiff.

Salford.—Alterations to Pendleton Branch Library (300*l.*), Mr. J. Corbett, Engineer, Salford; two Council schools, Ordsall District (architect to be appointed); extensions to oil works, Ouse-street, Pendleton; construction of public conveniences (3,650*l.*), Mr. Joseph Corbett, Surveyor, Salford.

Somerset Bridge. — School (2,250*l.*). Mr. A. E. Cottam, architect, Bridgwater; Mr. J. Fursland, builder, Bridgwater.

Southampton.—Chapel, lodge, and offices in new cemetery, Mr. J. A. Crowther, Borough Engineer; two houses, Khartoum-road, Mr. A. A. Burnett, architect, 2, High-street, Southampton; twenty-two houses, Newcombe-road, and four houses, Sandhurst-road, Mr. W. H. Masters, architect, 38, Regent-circus, Swindon, Wilts.

South Shields.—Y.M.C.A. premises. Mr. J. H. Morton, architect, 50, King-street, South Shields.

Twickenham. — School, Hartington and Napoleon roads, Mr. H. J. Saunders, Secretary to Twickenham Education Committee; eight shops and dwelling-houses, Nelson-road, Messrs. Howard Goadby, architects, Bank-chambers, London-road, Twickenham.

Warrington.—Eleven houses, Powell-street, for Mr. J. P. Booth; additions to works, Dalton Bank, for Messrs. Rylands Brothers; additions to works, Longford, for the English Products Company, Ltd.

Westcliff-on-Sea.—Boarding-house, Pembury-road (1,520*l.*). Mr. D. H. Smith, architect, Westcliff; Mr. W. Houghton, builder, Southend-on-Sea, and 7, Finsbury-square, E.C.

Wittingham.—Asylum building (90,000*l.*). Messrs. Sykes & Evans, architects, Chappel-walk, Manchester.

Wood Green.—Site for fire-station, Muswell-hill. Mr. W. P. Harding, clerk to Wood Green District Council.

METROPOLITAN WATER BOARD.

AT the fortnightly sitting of the Metropolitan Water Board on Friday last week the following matters were dealt with:—

Rebate for Municipal and Government Buildings.—The report of the Appeals and Assessment Committee recommending that a rebate in the charges be allowed on Government and municipal buildings was discussed in private. The Finance Committee pointed out that it was a proposal to grant a rebate in certain cases in which it could not legally be demanded by the Government or other public authority concerned, and they expressed a strong opinion that the present moment was entirely inopportune for the grant of any such concession.—The recommendation of the Appeals and Assessments Commitee was carried.

Loans.—The consent of the Local Government Board was reported for the borrowing of 4,357*l.* for erecting engine and boiler houses at West Molesey, and 731*l.* for construction of sluices at Staines.

Southgate Supply.—Authority was given for Messrs. T. Docwra & Son to continue pumping pending the completion of the authorised works for the supply to Southgate so as to afford a proper supply to property in the higher portions of the district.

Quantity Surveyors.—Messrs. Young & Brown were appointed to take out the quantities in connexion with the continuation of the store-house at Battersea, estimated to cost 4,500*l.*, and the construction of an engine-house at Hadley-road well, estimated to cost 9,500*l.*

Mains in Lambeth.—An expenditure of 855*l.* was authorised for the lowering of certain mains in Lambeth, reinstating pavement, etc.

Cottage at Stoke Newington.—It was agreed to erect a cottage for the accommodation of the foreman of the Stoke Newington reservoirs, at an estimated cost of 500*l.*

METROPOLITAN ASYLUMS BOARD.

THE usual fortnightly meeting of this Board was held on Saturday last week, when the following matters were dealt with:—

Finance.—The Finance Committee submitted their estimates for the half-year ending Michaelmas, 1909, the total net amount required being 530,580*l.*, or 12,340*l.* more than in the corresponding period.

Eastern Hospital.—Sketch plans were submitted by the Engineer for the adaptation of the Temperance Ward at the Eastern Hospital to isolation purposes. The ward will be divided into twenty isolation chambers instead of cubicles, as at the South-Western Hospital. Dr. Goodall, the Medical Superintendent, stated that he wanted these chambers for general isolation purposes. The cost of carrying out the work was estimated at 1,855*l.*—The matter was referred to the Works Committee to deal with.

Joyce Green Hospital.—It was agreed to repair the external roads at this hospital, at an estimated cost of 480*l.*

Cleaning and Painting Works.—The Works Committee reported that they had arranged for the cleaning and painting works and repairs at the Brook Hospital to be carried out by direct labour under the supervision of the Engineer-in-Chief, who estimated the cost approximately at 2,400*l.* It was further reported that the cost on completion of similar work at other institutions had been:—Grove Hospital, 808*l.* 16s.; North-Eastern, 898*l.* 12s. 9d.; South-Eastern, 1,720*l.* 2s. 2d.; South-Western, 1,359*l.* 10s. 8d.; and Western, 807*l.* 5s. 1d.

Darenth Asylum.—It was decided to approve of the plans prepared by the Engineer for the provision of additional workrooms in the industrial colony at the above asylum, at an estimated cost of 4,225*l.*, and to ask the sanction of the Local Government Board for the same.

THE PROVIDENT INSTITUTION OF BUILDERS' FOREMEN AND CLERKS OF WORKS.

THE annual dinner of this Institution was held in the King's Hall, Holborn Restaurant, on Saturday last week, Mr. F. L. Dove, L.C.C., presiding. The company numbered over 500, and amongst those present were Messrs. E. B. I'Anson, Leonard Horner, J. F. Bull, A. Stansfield, J. S. Gibson, J. Randall, — Driver, H. King, C. Elliott, E. C. Howell, and — Plowman.

The loyal toasts having been proposed by the Chairman and honoured,

The Chairman proposed the toast of the evening, *i.e.*, "The Provident Institution of Builders' Foremen and Clerks of Works." He said that some persons could not understand a combination of builders' foremen and clerks of works, and imagined that one must always be endeavouring to circumvent the other. That, of course, as they knew, was not so, and provided work was being carried out for a capable architect, by an honest builder, the clerk of works and the builders' foreman were both engaged in a common object, *i.e.*, to turn out work which would be a credit to everyone concerned. Both foremen and clerks had enough to contend with in their respective positions without falling out with one another, and in his experience the work which was most efficiently performed was that in the carrying out of which there had been the least friction. Clerks of works and builders' foremen, in the majority of cases, had the same training. They were brought up together, and nearly all their life they were intimately associated, and it should not be a matter of surprise that they should combine for the purpose of making provision for the time when they could no longer work in their old age, and, in the event of death, providing assistance for a wife and

children. One of the great charms of this Institution, which, to his mind, rendered it singularly worthy of support was the economy of its management. When one saw, as one did almost every day, many so-called benevolent institutions where the expenses of management ran away with 20 or 30 and more per cent. of the income, and which sometimes made one wonder if such societies were not run for the purpose of finding a job for the secretary, it was really quite delightful to see the economical manner in which this Institution was conducted, so that out of every 1*l.* that was subscribed only about one penny went in expenses of management; all the rest went for the support of those whom misfortune or old age had compelled to seek its assistance. Of course, it was not in any way a matter of surprise, because they all knew that for a man to be any good as either a foreman or clerk of works he must have a fine capacity for affairs, and the bump of organisation very well developed; and it was by the management of this Institution being in the hands of its members that this result was achieved. The Institution, which had now been carrying on its good work for something like sixty-seven years, struck out in a very small way, and from small beginnings had grown and extended greatly. They all knew through what depressing times the trade was now passing, and the various processes which various schools of thought imagined were the only cure. Whatever was going to make things better by-and-by we at the present moment had the solid fact before us that hundreds of first-class foremen and clerks of works were out of a job, and with no immediate prospect of getting one. It was almost pathetic the number of letters the firm with which he was connected received every week from men applying for work, all giving unimpeachable references of many years from first-class firms, but unable to get work owing to slackness of trade. It was at such times that an Institution like this needed additional support, and unfortunately at the same time the difficulty of obtaining subscriptions became more acute. He should not like to say the number of letters he had received during the last few days from various persons saying the Institution had their sympathy, but owing to the slackness of trade they could not subscribe. In these circumstances he asked those present and others to do their best by keeping up the present subscriptions and bringing in new subscribers to relieve the executive of any anxiety with regard to the income of the Institution. There was one matter he should like to refer to the favourable consideration of the Executive Committee, and that was the age limit for joining the Society. It not infrequently happened that a man did not become a clerk of works or foreman until the age limit was reached or passed. It was no fault of his; probably his employer had not earlier discovered his capacity for the position, and he suggested that with a properly graduated scale of extra premiums, which a good actuary could easily prepare, a foreman or clerk of works should be allowed to become a member for at least ten years later than the present rules permit. It would, he believed, very greatly strengthen the Institution, and bring in some very first-class men who were at present debarred from membership.

Mr. J. Beer, Correspondence Secretary, in response, said he replied with thankfulness and pleasure, and yet with a good deal of anxiety—of thankfulness for the reason that during the past year they had been able to do more to relieve the sufferings of their decayed members than ever they had been able to do before in the history of the Institution. Nearly 700*l.* had been paid away, and the executive felt thankful for that; but at the same time they felt a little anxious that during the coming year they believed that a number of men would be coming on the pension list. They were determined not to infringe upon their invested funds, and unless their friends and supporters assisted them they would have to consider very seriously whether it would not be their duty to decrease the pensions, though no one wished to do that. Another reason for anxiety was that there were so many men belonging to the Institution who were out of employment—good men, of integrity and ability. One of their members—a thoroughly competent and honourable man tried to get an appointment the other day, and he failed because, said the builder, he was a little too old. That man's age was just over 50! As to the Chairman's suggestion of increasing the age limit for admission, the age limit was now 41, and if men were to be debarred from getting work at 50, they could hardly expect the Institution to admit them, bearing in mind what they would pay in the ten years before they were entitled to a pension. But the Chairman's suggestion would be carefully and thoughtfully considered, though he feared that while experienced men were considered to be too old at 50 the Institution would not be able to reduce the age limit. In conclusion, he appealed to all friends of the Institution to assist them.

Mr. Leonard Horner then proposed the toast of "The Architects and Surveyors," coupled with the names of Mr. J. S. Gibson and Mr. Harold C. King, M.A. He said that all those who came into contact with the members of the two professions were much impressed by their ability and integrity, and builders liked to assist in putting together piece by piece that which was described on paper, or expressed in bills of quantities. They must admire the ability of architects in designing the large and small works of art that were arising in our midst, and they admired the ability and pluck shown in planning the difficult and dangerous alterations to existing buildings which were required from time to time, and they admired the ability shown in being able to carry out schemes in the face of by-laws and Building Acts, bristling with impossible points, and in the face of a sometimes not over-scrupulous adjoining owner. An architect was nowadays called upon to deal with many matters other than his art. He was consulted as to the land and the value thereof; the heating, decoration, and the mysteries of electric light and other matters outside his province. He had heard it said that the duty of the architect was to prepare drawings that the client and the quantity surveyor could not understand, and, on the other hand, that the duty of the quantity surveyor was to prepare a bill of quantities that the client and the architect could not understand. Great as the honesty and integrity of the members of these professions had ever been, he believed that never had they been held in higher esteem than at present. Builders realised that in signing the building agreement that was now recognised, and which had taken so long to prepare, builders placed themselves somewhat in the hands of architects; but never had their confidence in their integrity been misplaced, and they were at all times willing and ready to sign that agreement. Much as those connected with the building trade esteemed and respected the members of these professions, the public generally, for whose good and comfort so much was done, did not treat their great services with adequate return, and appeared to be ignorant of the good they had been responsible for. The Press, too, ignored architects and architecture in an unaccountable way.

Mr. J. S. Gibson, in replying for the architects, said that as to architects who prepared drawings and the quantity surveyor who prepared bills of quantities which no one could understand, he rather thought that that was a distinct advantage from the point of view of the foreman and the clerk of works, because if everything was done in a perfect way perhaps there would be very little to do for the clerk of works and the foreman.

Mr. King said the quantity surveyor was forgotten by the Chairman when he referred to honest builders and architects, and that was what the quantity surveyor rather suffered from at the present time. An architect designed a building, and his name was handed down to posterity as the designer of a fine work. The builder, who carried out the work, pointed to it with pride, and said, "I built that." But where did the quantity surveyor come in? No one seemed to know or to care what he had had to do in the work—how he had stood between the architect and the builder and tried to pacify them both. If the tenders came out too high, the architect assumed that the quantity surveyor had made a mistake, and if, at the end of the job, the builder found he was on the wrong side, the poor quantity surveyor was blamed. They were not allowed to carve a niche in the temple of fame, and they were generally forgotten.

Mr. Barnes then proposed the toast of "The Builders and Contractors." He referred to the bad state of trade and to the need of organisation, etc., on the part of builders and contractors to deal with the situation.

Mr. J. Randall having briefly replied,

Mr. F. Hann, Financial Secretary, read a long list of donations and subscriptions given or promised, including 25 guineas from Messrs. Dove Brothers; 10 guineas each from the Chairman, Mr. F. L. Dove, and the Institute of Builders; and 5 guineas from the Governor, Mr. F. J. Dove. The total amount announced was 318*l.*

The concluding toasts were "The Governor (Mr. F. J. Dove), the Trustees (Messrs. F. J. Dove, J. Howard Colls, and T. Costigan), Donors, Subscribers, and Visitors," which was suitably proposed by Mr. Hann and replied to by Mr. F. A. Ollis; and "The Chairman," proposed by Mr. J. S. Gibson, the Chairman, in replying, being received with musical honours.

Obituary.

MR. W. W. BETHELL.

Mr. William Wood Bethell, architect, died at 2, Dane-road, St. Leonards-on-Sea, on February 7, 1909, in the 60th year of his age. Mr. Bethell, who was the second son of Mr. William Hole Bethell, of Pilton, Somerset, was articled to the late G. E. Street for three years from April 21, 1869, and subsequently began to practise independently at Craven-street. He afterwards removed to 7, Queen Anne's-gate, and, owing to ill-health, went, about 1892, to reside at St. Leonards, whence he carried on his work. Among his principal works were several large residences and a number of cottages at Stoke Bishop, Bristol; additions to Scarning Rectory; the church of St. John the Evangelist, at Charfield, Gloucestershire, and subsequently the church schools there; a very complete restoration of Hawkesbury Church, Gloucestershire (of which he wrote an interesting account, printed in the *Transactions* of the Gloucester and Bristol Archæological Society); the Clifton College Mission Church of St. Agnes, Bristol, with its club and other buildings; the restoration of the very interesting half-timber Town Hall at Bridgnorth, and the rebuilding of the Palmers Hospital there; also in the same neighbourhood two houses, and the restoration of Claverley Church; a number of houses on the St. Catherine's Estate, Broxbourne; houses at Sheringham, Norfolk; the large Church of St. Andrew, Avonmouth, Bristol; houses at Southwater, Horsham, Amwell, and Hertford; the chapel and other buildings at the Hoddesdon Cemetery; and extensive rebuilding and decorative work at Fanhams Hall, Ware; alterations to Bunwell Church and Rectory, Norfolk, and to Shirehampton Church, Glouc.; reredos at St. Paul's, Kensington; schools at Ware, and at Hemingford Grey, etc. He was engaged on the restoration of Hill Church at the time of his death. His only pupil, Mr. W. B. Hopkins, who furnishes the above particulars, adds that those who knew Mr. Bethell's work could only regret that the ill-health which he courageously fought against for the last eighteen years of his life prevented his attainment of a much more extended sphere of work.

General Building News.

MISSION CHURCH, MANCHESTER.

A branch mission church is being built in connexion with St. Philip's, Bradford-road, in Hooton-street. It will have seating accommodation for 300, and, should occasion require it, may be extended to seat an additional 100 persons. The architects are Messrs. Potts, Son, & Hennings, of Manchester, and the contractors Messrs. J. Hollingworth & Sons, Patricroft.

CONGREGATIONAL CHURCH, SHREWSBURY.

The Nonconformists at Shrewsbury have opened a new church at Coton Hill. The new building has been erected from the designs of Mr. A. B. Deakin, architect, of Shrewsbury, and has been carried out in red brickwork relieved with white Grinshill stone dressings covered with grey slate roof. The pews will accommodate 500 people. The general contract has been carried out by Councillor Pace, the sub-contractors being Messrs. G. & W. Edwards, stone masons; Mr. W. Jones, plumber; Mr. R. W. Watkins, painter and decorator; Messrs. Lea, Son, & Co., electric light installation, and Mr. J. Hewitson, of Bilston, vulcanite flat. The heating is by the medium-pressure hot-water system, and has been carried out by Messrs. R. Alger & Sons, of Newport, Mon., and Shrewsbury.

PARISH CHURCH, HASLINGTON.

It is proposed shortly to commence the reconstruction of the parish church at Haslington, near Crewe. The first portions to be taken in hand will be the new chancel vestries, organ-chamber, and heating vault, which will be commenced shortly, and it is hoped that funds will at an early date permit of the nave and aisles being proceeded with. The new buildings will be of brick with stone dressings, and the style will be late Gothic. The total accommodation will be for about 400. The architect is Mr. Reginald T. Longden, of Burslem and Leek, Staffs.

NEW CHURCH, EARBY, YORKS.

The corner-stone of a new church for Earby, which forms part of the Thornton-in-Craven parish, has just been laid. The designs have been prepared by Mr. F. Thorman, of Thorman & Bromet, Tadcaster. The nave, south aisle, and chancel are now in course of construction; the tower in the north aisle will be erected at a subsequent stage. The total estimated cost is 4,000*l.*

NEW CHURCH, LEEDS.

The new church of St. Margaret, Cardigan-road, Leeds, has now been opened for public worship. The church has been erected at a cost of 10,000*l.*, and has accommodation for 750 people. Mr. Temple Moore is the architect of the church.

WREXHAM CHURCH.

This new church is to be started immediately, Mr. Bowers, of Hereford, having obtained the contract for 6,210*l.* The building will be capable of seating 400 altogether, and is to be complete with tower and spire and all fittings in about twelve months' time. It will be in the early Perpendicular style of architecture, built entirely of local stone, with Cefn stone dressings, the chancel fittings being of oak throughout. The new building forms part of the Wrexham Church extension scheme, and is designed by Mr. L. W. Barnard, of Messrs. Prothero, Phillott, & Barnard, Cheltenham. The church house is being built for the Church Extension Committee by Mr. W. E. Samuel, at a cost of 4,000*l.*, and provides a great hall and clubrooms, with a 25-yd. rifle range and committee-rooms. The same Committee also contemplate the erection of a church school at Smithfield, Wrexham, and hope to start the work shortly, Messrs. Prothero, Phillott, & Barnard, of Cheltenham, being architects for both these works.

CHURCH RESTORATION, ANNESLEY, NOTTS.

Annesley Church, which was destroyed by the act of an incendiary in January, 1907, has now been rebuilt. The fire destroyed all the woodwork, and, with the exception of the tower and spire and the south side of the chancel, nearly the whole of the stonework had to be pulled down and rebuilt, including all stone tracery work to the windows. A considerable amount of new work had to be executed to make good the damage done to the tower and spire, and the vane was restored. The roofs are covered with green Westmorland slates instead of Staffordshire tiles, as in the first instance. The tesselated floor of the chancel is the work of Messrs. Powell & Sons, London. The stained-glass windows are by the same firm. The new figures, and the carving connected therewith under the roof principals at the east end of the nave, have been executed by Messrs. Sharp & Yeo, Nottingham. The marble work connected with the pulpit and baptistery was executed by Mr. Gibson Kirke, Nottingham. The heating arrangements were carried out by the Meadow Foundry Company, Mansfield. Messrs. Harrington, Latham, & Co., of Coventry, have supplied the tubular bells, which are hung in the belfry. The work of restoration has been carried out under the direction of the architect, Mr. Robert Evans, of Nottingham, the contractors being Messrs. Thos. Fish & Sons, Nottingham.

IMPROVEMENTS AT ST. MARK'S, SHEFFIELD.

It has been decided to erect new vestries for clergy and choir in the south-east corner of this church. The plans have been drawn by Mr. J. D. Webster, architect, of Sheffield. The renovation of the organ is in the hands of Messrs. Brindley & Foster, who built the instrument originally.

BAPTIST CHAPEL, ARNOLD.

The old Baptist chapel in Cross-street, Arnold, has been rebuilt. The chapel, which has a seating capacity of 300, was designed by Mr. W. S. Higginbottom, architect.

METHODIST CHAPEL, PONTYPRIDD.

A new Welsh Calvinistic Methodist chapel has been opened at Coedpenmaen, Pontypridd. The front elevation of the chapel is built of blue local stone with blue Forest of Dean stone dressings. The whole of the interior woodwork is in pitch-pine. The building is heated with hot-water apparatus. The contract was carried out by Mr. Watkin Williams, of Cardiff and Pontypridd, from designs and under the supervision of Mr. Philip J. Jones, architect, and the total cost is about 1,700*l.*

COUNCIL SCHOOL, CWMGWILI.

A new Carmarthenshire Council school has been opened at Cwmgwili, near Cross Hands. The new school provides accommodation for 180 scholars, and is designed on the corridor system. The whole of the work was carried out by Mr. Rees Davies, of Carmarthen, at a cost of 2,300*l.*, from designs of the County Architect, Mr. W. Vincent Morgan, the clerk of the works being Mr. Fred Phillips, Ammanford.

ALMSHOUSES, ILKESTON.

It is proposed to erect six almshouses at Ilkeston at a memorial to the late Alderman Francis Sudbury, J.P. The buildings are to be erected on a plot of land situated at the corner of Park-road and Park-avenue, and have been designed to occupy three sides of a square. Each house contains a living-room and bedroom, scullery, larder, etc. The architect is Mr. H. Tatham Sudbury.

INFIRMARY, TOTNES.

The new Totnes Workhouse Infirmary has been opened, which was demolished some time ago; it is the most colossal edifice in the district, and so additionally conspicuous from the fact that it is built of red brick. The architect for the work was Mr. W. F. Tollit, of Totnes, and the builders were Messrs. Pethick, of Plymouth. The central façade is of Portland stone, and the main building is of Wellington brick. The rooms are heated by a circulating hot-water system, and hot and cold water is laid throughout. The infirmary is lit by electricity. There are a verandah at the back and a balcony above the whole length of the building, each ward being connected with fire-escape stairs. The contract price was 6,977*l.*, but the total cost, including furnishing, lighting, heating, etc., amounted to about 8,500*l.*

BANK PREMISES, HIGH WYCOMBE.

Messrs. Barclay & Co. have opened new bank premises in the High-street, High Wycombe. The property, which was originally a private residence, has had numerous alterations made to it, the following being the contractors:—Glass, Messrs. James & Co., Kentish Town; oak fittings, etc., Messrs. W. Birch, Ltd., Wycombe and London; constructional steelwork, Messrs. H. L. Rutty & Co. The general contractor has been Mr. Henry Flint of High Wycombe. The architects entrusted with the work were Messrs. Vernon & Son, of London and High Wycombe.

COTTAGE HOSPITAL, PURLEY, SURREY.

The Purley and District Cottage Hospital will be opened for the reception of patients on the 31st inst. The building has been arranged on two stories, with a ward for men on the ground floor, and for women on the first floor. The work has been carried out under the supervision of, and from the plans prepared by, the Architect to the Committee, Mr. John Newton, of Purley.

COTTAGE HOSPITAL, BLANTYRE.

At a meeting of the Executive Committee of the Blantyre Cottage Hospital it was decided to proceed with the erection of a new cottage hospital, the plans of Messrs. Hutton & Taylor, architects, Glasgow, being accepted. The building is of the pavilion type, comprising male and female wards, operating-theatre, and the usual administrative accommodation for a cottage hospital. Mr. W. B. Dow has been appointed measurer.

IMPROVEMENTS, BRIDLINGTON.

Mr. A. A. G. Malet, M.Inst.C.E., Local Government Board Inspector, recently held an inquiry relative to the application of the Bridlington Corporation to borrow 700*l.* for the improvement of a portion of the Marine-drive, 1,600*l.* for purposes of the Pembroke-terrace gardens, and 1,300*l.* for the reconstruction and furnishing of the Beaconsfield lavatories. Mr. E. R. Matthews, the Borough Surveyor, produced the plans, etc., and went into details with the Inspector.

PROPOSED PUBLIC BATHS, WOLVERHAMPTON.

It is proposed to carry out improvements and additions at the Wolverhampton Public Baths, and a Local Government Board inquiry has been held by Mr. M. K. North, M.Inst.C.E., into the Corporation's application to borrow 10,200*l.* for this purpose. The scheme comprises the construction of a large swimming-bath, new private slipper-baths for men and women—thirteen for women and eighteen for men—and various alterations. An aerating filter apparatus for cleansing and economising the supply of water is also to be provided, the cost being 1,200*l.* The Borough Surveyor, Mr. G. Green, was present at the inquiry.

MUNICIPAL MARKET, ABERAVON.

The new market which the Aberavon Corporation have erected on the site of the old cattle market, replacing the building destroyed by fire, has just been opened. The front elevations of the building, in Water-street and Church-street, are faced with red bricks with moulded panels. The plinth, entrances, and pilasters are of grey Forest of Dean stone, and the entrances are provided with steel collapsible gates, and the internal walls and fronts of stalls are of white glazed bricks, and the fronts of the stalls are fitted with revolving shutters. A roadway for vehicular traffic runs through the centre. The floor is paved with granolithic, and the roof is of the pavilion order. The plans were prepared by the Borough Surveyor, Mr. James Roderick, and the clerk of the works was Mr. E. L. Rees, whilst the contractors were Messrs. Gilbert Thompson & Co., Ltd., Birmingham. Messrs. Davies & Sons, Newport, did the subcontracting for the masonry. The cost of the building was 6,000*l.* The market is lit with high-pressure gas (Keith's system). The lighting arrangements were carried out by Mr. Bond, Aberavon gas manager.

Sanitary and Engineering News.

FILTER BEDS, HENDON.

Mr. H. G. Hetherington, C.E., held a Local Government inquiry at Hendon on the 2nd ult. into the application of the Urban District Council for sanction to a loan of 11,334*l.* for the construction of over 10,000 super. yds. of additional bacteria filter beds at their sewage outfall works, and for a further sum of 3,656*l.* for works of storm-water drainage in Golder's Green-road and North End-road. Mr. S. Slater Grimley, the Engineer to the Council, gave evidence in detail as to the sewage flow levels and capacity of proposed filters and works, and estimated the population of the district at 32,000. Owing to the opening of the Charing Cross, Euston, and Hampstead Tube Railway (which has a station at Golder's Green) in June, 1907, a great impetus has been given to building developments in the district. The Middlesex County Council are constructing tramways in Regent's Park-road and Child's-hill, which will doubtless further stimulate developments in this picturesque residential suburb of London.

BRIDGE BUILDING AT PORTOBELLO.

As part of the scheme for the widening of the North British Railway between Piershill and Brunstane some smart engineering work was recently accomplished at Baileyfield Bridge, Portobello. Under the direction of Mr. James Bell, Chief Engineer of the Railway Company, the permanent way of the East Coast route (both up and down lines) was lifted. Then the contractors, Messrs. Hugh Symington & Sons, Glasgow, lifted the flooring and girder work of the bridge clear away, substituted a new girder bridge with steel floor covered with cement complete, filled in the girder ends with a double course of concrete blocks, and gave place to the railway men, who relaid the permanent way. All this was accomplished successfully between seven o'clock in the morning and five o'clock in the afternoon. There were about 120 men engaged in the work. Mr. Thomas Symington and Mr. David Kinmont superintended the contractors' work. Mr. C. J. Brown, Chief Assistant Engineer; Mr. R. Boath, District Engineer of the North British Railway; and Mr. Walter Thomson, of the Brandon Bridge-building Company, Motherwell, contractors for the iron and steel work, were also present.

SEA-WATER SUPPLY, BLACKPOOL.

Mr. C. F. Dains, Local Government Board Inspector, held an inquiry at Blackpool Town Hall recently into the Corporation's application to borrow 3,050*l.* for purposes of their sea-water supply. Mr. T. Loftes, Town Clerk, explained that the loan was required to provide new electrical pumps and distributing mains for the sea-water works which were acquired by the Corporation in 1902 from a company created in 1873. The old plant had become obsolete, and some parts of the town were not now served with sea water, and it was proposed to extend the service pipes into those districts. Mr. J. S. Brodie, Borough Surveyor, gave details of the work proposed to be carried out, and said the new scheme would provide for the sea water being filtered. Mr. C. Furness, Borough Electrical Engineer, also gave evidence.

SEWERAGE SCHEME, ST. CUTHBERT, CUMBERLAND.

Mr. H. Shelford Bidwell, M.Inst.C.E., Inspector of the Local Government Board, recently held an inquiry with regard to the application of the Carlisle Rural District Council for sanction to borrow 30,200*l.* respectively for sewerage purposes in the parishes of St. Cuthbert and Wetheral. In the course of the inquiry Mr. Joseph Graham, the Council's Engineer, was called. He said he had designed the scheme, the plans of which were before the Inspector. The carrying capacity of the sewers was four times the existing requirements. The bacteria-beds would treat twice the dry-weather flow of the present population. There were six double contact-beds, which would be filled one and a half times a day in dry weather and three times in wet. The capacity of the beds was three-quarters the dry-weather flow. In consequence of certain regulations which had been issued by the Local Government Board it was now proposed to delete the storm filter and to substitute storm-water stand-by tanks for the treatment of storm water. The filters were capable of dealing with twice the dry-weather flow. There were two sedimentation tanks constructed for three-quarters of the dry-weather flow. The filter and contact beds were twelve in number. The sludge area was 1,000 sq. yds. Mr. H. C. Marks, the Carlisle City Surveyor, also gave evidence.

Miscellaneous.

THE UNITED STATES COUNCIL OF FINE ARTS.

We take the following from the current issue of the *Journal* of the Royal Institute of British Architects:—"The Council of Fine Arts created by President Roosevelt is the direct outcome of unceasing effort on the part of the American Institute of Architects to bring about the appointment of a body of experts to exercise control over the design of public buildings, the location and erection of public monuments, the laying out of open spaces, street improvements, etc. The newly constituted Council is composed of twenty-one architects, four painters, four sculptors and one landscape architect. The President's order provides that before any plans are formulated for any public building or grounds, or for the location or erection of any statues, the matter must be submitted to the Council of Fine Arts, and their advice followed, unless for good and sufficient reasons the President directs otherwise. The order directs 'the heads of executive departments, bureaus, and commissions to govern themselves accordingly.' The Council is constituted as follows: Architects—Cass Gilbert, C. Grant La Farge, Walter Cook, William A. Boring, S. B. P. Trowbridge, John G. Howard, Glenn Brown, Thomas R. Kimball, John L. Mauran, D. H. Burnham, John M. Donaldson, George B. Post, Arnold W. Brunner, Robert S. Peabody, Charles F. McKim, William S. Eames, James Rush Marshall, Abram Garfield, Frank Miles Day, William B. Mundie, C. Howard Walker. Painters—John La Farge, F. D. Millet, E. H. Blashfield, Kenyon Cox. Sculptors—Daniel C. French, Herbert Adams, H. A. MacNeil, K. T. Bitter. Landscape architect—Frederick Law Olmstead, jun."

PROPOSED BRISTOL IMPROVEMENTS.

On the 9th ult. Mr. E. W. Hollingworth, A.M.Inst.C.E., held a Local Government Board inquiry into an application of the Bristol City Council for sanction to borrow sums amounting to 2,215*l.* for purposes of Bedminster Common and Horfield Common (including the improvement of Gloucester-road and Bedminster Down-road), for fencing and planting the slopes in Ashton-avenue, and for purposes of street improvement in Westbury-road. Mr. W. H. Wise, representing the Town Clerk, explained that the improvements were primarily intended to provide work for the unemployed. The City Engineer, Colonel Yabbicom, and his assistant, Mr. Steele, were present at the inquiry.

QUARRIES IN THE UNITED KINGDOM.

Mr. Fell asks in Tuesday's Parliamentary papers how many quarries in the United Kingdom had been closed during the past three years, and how many men had been previously employed in these quarries.—Mr. Gladstone replies to the effect that the latest statistical information shows that in 1905 7,513 quarries were being worked, employing 94,819 persons; in 1906, 7,278 quarries, employing 91,516 persons; and in 1907, 7,093 quarries, employing 87,814 persons.

IRISH ANTIQUITIES.

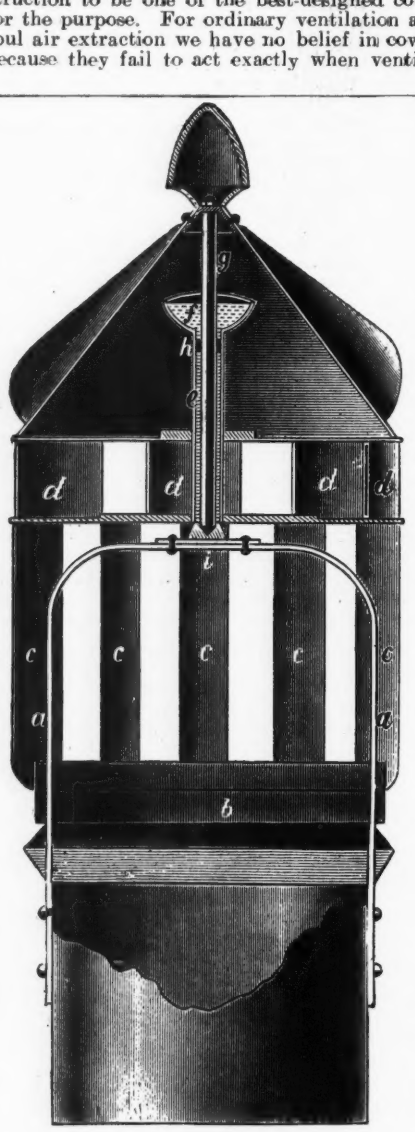
Replying to a question asked by Mr. Field, Sir Edward Strachey states that the Board of Agriculture are not aware that any of the names of sites of Irish antiquities, if properly authenticated, have been eliminated from the new or revised Ordnance Survey maps now being published. If any such omission has occurred and it is brought to their knowledge, the Board will investigate it.

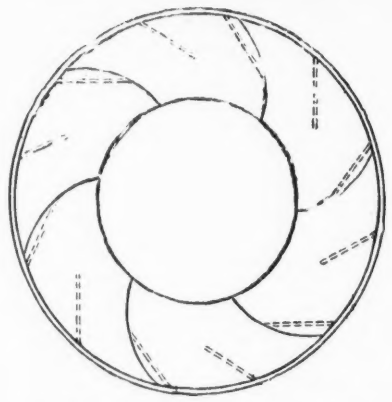
"EVERYTHING FOR THE HOME" EXHIBITION, BIRMINGHAM.

Under this title an important exhibition is to be held in Birmingham from October 6 to October 23 of this year, to be under the management of "The International Trade Exhibitions, Ltd." The central idea of this exhibition will be to bring together everything that is essential to the building, decorating, and equipment of the Home; while, without departing from this point of view, the scope of the undertaking will be sufficiently broad to admit of accessory articles of luxury and comfort. Philanthropic and charitable work afforded by such will be a distinct feature. Space will be provided by the management, free of charge, for demonstrating schemes of housing the poor, model cottages, sanatoria, crèches, etc., and space will be specially allocated to various guilds of handicraft. It is proposed also to arrange a series of lectures on subjects connected with the Exhibition. The exhibits will be classed under the headings of "Construction," "Sanitation," "Decoration," "Ventilating and Heating," "Lighting," "Furnishing," and "Recreation and Culture."

HARVEY'S SMOKE-EJECTOR CHIMNEY.

Messrs. G. A. Harvey & Co (Lewisham) send us illustrations and description of their "turbine" chimney cowl for the cure of smoky chimneys, from which the annexed diagrams are taken, and which appears from the construction to be one of the best-designed cowls for the purpose. For ordinary ventilation and foul air extraction we have no belief in cowls, because they fail to act exactly when ventilation is most wanted—*i.e.*, when there is no wind; but for smoke extraction they may be very successful, because the difficulty with smoky chimneys almost always occurs when there is a wind, and when the cowl is therefore put in action. The notes under the section sufficiently explain its working; in the plan the straight dotted lines are those of the vertical blades, and the curved lines those of the smoke ejector.





Harvey's "Turbine" Smoke Ejector: Section and Plan.

A. Strong wrought-iron framework, supporting centre bearing, also serving as a protection to blades, fans, spindle, etc., from damage by sweep's broom.

B. Circular base to which blades are fixed.

C. Vertical revolving blades. Self cleansing.

D. Patent smoke ejector.

E. Oil cylinder in which spindle works.

F. Copper oil reservoir—supplies oil to cylinder.

G. Turned and carefully tempered steel spindle, revolving on prepared metal bearings in oil cylinder, always lubricated.

H. Brass bearing (in oil cylinder) to ensure easy running and maintain position of spindle.

I. Steel centre plate, on which is fixed prepared metal bearing.

NOTES FROM FRANCE.

At the Hôtel of the French Embassy at Vienna, built from the designs of M. Chédanne, M. Besnard has just completed the decorative painting on the ceiling of the Salon d'Honneur. The subject is "Austria Welcoming France." Other rooms in the same building are being decorated by M. Georges Picard.

The annual prize founded by the late architect Lheureux, which was to be awarded in alternative years to a sculptor and an architect, has been awarded this year to M. Paul Aubé, sculptor, for his decorative bas-reliefs in the Hôtel Boni de Castellane, in the Avenue Bois de Boulogne, Paris.

The Académie des Beaux-Arts, at a recent sitting, proceeded to the election of a member in the section of painting, in the place of the late veteran artist Hébert. M. Raphael Collin was elected by 19 votes, against 12 for M. Gervex and 3 for M. Roybet. M. Collin, the new member, was a pupil of Cabanel, and obtained the "Grand Prix" in painting at the 1889 exhibition, in which year also he was elected "Officier" in the Legion of Honour.

At the same sitting the Académie gave its judgment in regard to the Roux competition, founded by M. Roux in favour of painters, sculptors, architects, and engravers. The prizes were awarded as follows: Painting—M. Brat (pupil of M. Cormon); Sculpture—M. Bugonet (pupil of M. Coutan); Architecture—M. Abella (pupil of M. Bernier); Engraving—M. Ourlac (pupil of M. Waltner).

At the Ecole des Beaux-Arts the Rougevin annual competition in architecture has been adjudged, and the prize awarded to M. Michel Louis, a pupil of M. Bernier. The subject of the competition was—"A cloister forming the entrance to the crypt of a Pantheon."

MIDDLESEX COUNTY COUNCIL.

At the meeting on February 25 the Special Committee, which has been appointed in reference to the extension of the Guildhall, reported that Mr. J. S. Gibson, who was engaged to advise as to the space available for building on the new site, was prepared to further advise with regard to the pulling down of the existing building and erecting an entirely new block of buildings on the whole site. The Committee recommended that Mr. Gibson be so engaged, and this was agreed to. Plans were approved for the Metropolitan Electric Tramways, Ltd., to erect repair shops behind the Hendon depôt sheds. The total amount proposed to be laid out in these shops is 12,000*l.*, of which 8,000*l.* is to go for building, 1,500*l.* for track work, and 2,000*l.* for machinery. A resolution was passed that a new school be erected at Northwood to accommodate about 300 children. A grant of 150*l.* was made to the Governors of Enfield Grammar School, this sum being half the estimated cost of the proposed conversion of the assembly-hall into a science laboratory.

TECHNICAL INSTITUTE, WOKING.

The Surrey Education Committee have framed a scheme for the provision of a technical institute and a boys' secondary school at Woking. The estimated cost, 21,000*l.*, will be equally shared by the county and the district, the Urban Council's contribution not exceeding, at the most, the equivalent of a penny rate. The maintenance of the institute and school will be defrayed out of the county funds.

THE ROYAL SANITARY INSTITUTE.

At an examination in Sanitary Science as Applied to Buildings and Public Works, held at Hull on February 26 and 27, three candidates presented themselves, and one, G. E. Rhodes (Bingley), was granted a certificate.

THAMES CONSERVANCY.

At a meeting of the Board on Monday the following applications were granted:—Messrs. Allen & Simmonds, Reading, to place an iron girder with travelling crane over the towpath and river above Caversham Lock for loading machinery into barges; Messrs. Eastwood & Co., Ltd., Lambeth, to convert their premises, Orleans Boat-house, Teddington, into a wharf, to form a chalk barge berth, and drive three piles; London County Council, to place a 30-in. suction pipe and a 30-in. discharge pipe in the river off their generating-station at Crowley's Wharf, East Greenwich; Monument Bonded Warehouse Company, Ltd., 95, Upper Thames-street, to place a 2-in. suction pipe off their premises; South Metropolitan Gas Company, Ltd., 709, Old Kent-road, S.E., to embank the entrance to the dock at their premises at Vauxhall; Messrs. Page, Calman, & Co., Ltd., Town Quay Wharf, Barking, to embank on the site of an existing barge dock and in front of their premises in Barking Creek.

THE BUILDING STONES OF GLASGOW.

At a meeting of the Architectural Section of the Royal Philosophical Society of Glasgow,

in the rooms, 207, Bath-street, on the 25th ult., Mr. Peter Macnair, F.G.S., F.R.S.E., read a paper, illustrated by lantern views, on "The Building Stones of the Glasgow District." At the outset Mr. Macnair gave a brief account of the geological structure of Glasgow district and the different kinds of rock that were within this area. It was pointed out that the rocks belong to the carboniferous period, and consisted for the most part of alternations of beds of sandstone, shale, limestone, coal, and ironstone. They represented a very great variety in the physical conditions under which they were accumulated, and included terrestrial, estuarine, and marine deposits. The only one of these rocks used for building purposes was sandstone, and the principal quarries were confined to the carboniferous limestone series and the coal measures. The lecturer then passed on to describe the chemical and physical characters of the sandstones, then going on to deal with the decay of sandstones, with special reference to local buildings. He said the quartz granules in sandstones were not any more liable to decomposition than to alteration, but when the cementing material was decomposed by chemical action, or the rock was attacked simply by the mechanical action of rain, it crumbled into sand. When a sandstone presented well-marked laminæ of stratification it was almost certain to split along these planes under the action of the weather. This important fact was well known to builders, so that in laying courses of masonry care should always be taken to see that the stone was placed in the same position as that in which it was originally deposited, or that the laminæ should occupy a horizontal position. As a rule the bedding planes of sandstones of the liver rock type could be easily distinguished by the fact that the broad faces of the mica flakes lay parallel to the planes of bedding. It would also be found that as a rule the stones which showed the most evidence of decay had been placed "on the cant." In conclusion, Mr. Macnair pointed out that the large quantity of carbonates which were often present as the cementing substance in the carboniferous sandstones of the West of Scotland were soluble in water containing carbonic acid, and there could be no doubt that chemical action also played an important part in the disintegration of the stones.

Capital and Labour.

CONDITION OF EMPLOYMENT IN THE BUILDING TRADES.

Employment in January was slack in all parts of the United Kingdom. It showed little general change compared with December, but was much worse than in January, 1908. During part of the month building operations were seriously interfered with by frosty weather, which, however, afforded additional work for plumbers, who reported a slight improvement in employment as compared with a month ago. Returns received from 774 firms, employing 36,633 workpeople, at the end of January show that there was a total decrease in the number of workpeople employed of 1·2 per cent. compared with a month ago, and of 9·7 per cent. compared with a year ago. The percentage of trade union carpenters and joiners unemployed at the end of January was 16·3, as compared with 15·9 a month ago and 12·3 a year ago; and for plumbers at the same dates the percentages were 10·3, 12·1, and 9·0 respectively. In both cases the percentage decline in employment compared with a year ago was greatest in Scotland, where a considerable proportion of carpenters and plumbers are engaged in shipbuilding. For London the trade union returns show that 15·2 per cent. of carpenters and joiners were unemployed, as compared with 15·5 a month ago and 13·6 a year ago, the corresponding percentages for plumbers being 11·2, 15·2, and 14·2 respectively. —*Board of Trade Labour Gazette.*

Patents.

APPLICATIONS PUBLISHED.*

2,463 of 1908.—John Greenwood: Window and like fasteners.

2,666 of 1908.—Thomas Burge and Frederick George Behnam: Sash windows.

3,451 of 1908.—John Switzer Owens: Constructing groynes, breakwaters, and the like.

4,695 of 1908.—John Joseph Rawlings: Fastening for tubes, pipes, rods, and the like.

6,095 of 1908.—John Jesse James: Sash lifts and rod or pole brackets.

6,299 of 1908.—Arthur Illidge: Stays such as are used with casements, fanlights, and the like.

6,561 of 1908.—Philip Morris Pritchard and the United Alkali Company, Ltd.: Apparatus for the production of iron from finely-divided ores.

7,567 of 1908.—Ernest Sparks: Automatic safety cut-off valve for gas and water supply services.

10,044 of 1908.—John Max Naull Wilson: Process of removing paint and varnish.

10,472 of 1908.—Albert Edward Elmes: Appliance for securing portable or temporary platforms and partitions.

11,187 of 1908.—Thomas Taylor: Improvements in fireplaces.

11,454 of 1908.—Wenham & Waters, Ltd., and William Henry Fowler: Casement windows and the like.

12,676 of 1908.—Frederick Thomas Watts: Machines for crushing or disintegrating ore and other substances.

13,950 of 1908.—William Heaton Longsdorf: Fastenings for windows, shutters, and the like.

15,349 of 1908.—John Francis Havemeyer: Reinforcing means for concrete and like structures.

15,762 of 1908.—Ignaz von der Forst and Paul von der Forst: Manufacture of ornamental glazings.

18,738 of 1908.—Frank McKay Allan: Manufacture of clinker for making Portland cement.

25,538 of 1908.—Hugo Sack: Manufacture of I-girders with parallel flanges.

26,695 of 1908.—Amos Ware and William Joseph Ware: Moulds for roofing tiles and the like.

* All these applications are in the stage in which opposition to the grant of patents upon them can be made.

Law Reports.

WESTMINSTER HOSPITAL v. WESLEYAN METHODISTS TWENTIETH CENTURY FUND.

In the Chancery Division on the 26th ult. the case of the Westminster Hospital *v.* Wesleyan Methodists Twentieth Century Fund, again came before Mr. Justice Joyce, upon a motion of the Trustees of Westminster Hospital for an interim injunction restraining the defendants until the trial or further order from erecting the proposed new Wesleyan Memorial Hall in such a manner as to inferfere with the plaintiffs' ancient lights. (The case was reported in last week's issue of the *Builder*.)

Mr. Hughes, K.C. (for the plaintiffs), said that the Hospital Committee had considered his lordship's suggestion that he should have a report made, and they were willing and anxious that that course should be taken. They were of opinion that it would be a desirable course for his lordship's guidance.

Mr. Younger, K.C. (for the defendants), agreed that it would be a proper and convenient course.

His lordship: Can you agree on anyone?

Mr. Younger said he was willing that Mr. Slater should make the report.

Mr. Hughes: We are quite willing also.

It was agreed that Mr. Slater should have before him all the plans of the proposed building and the plans of the old building, as well as any further information or assistance he might require, an expert on either side being at liberty to attend, and that for the purpose of his report all the plaintiffs' lights should be treated as being ancient, without prejudice to any question that might be raised with respect to some of the lights subsequently.

Mr. Hughes suggested that Mr. Slater should be instructed to report whether, if the proposed plans were carried out, there would be a substantial deprivation of the plaintiffs' light, and, if so, was it enough to render the occupation of the hospital uncomfortable according to the ordinary notions of mankind, and to prevent the hospital being carried on as efficiently as before.

His lordship said he would not confine himself to any particular form of words, but he would ask Mr. Slater, if he came to the conclusion that there was cause of complaint, what modifications of the plans he could suggest to remedy it. If counsel liked he would refer the whole matter to Mr. Slater to decide.

Mr. Hughes said he could not agree to that at present.

His lordship: Very well; but I shall hesitate very long before deciding against the report of such a man as Mr. Slater.

HEREFORD BUILDING DISPUTE.

In a Divisional Court, consisting of Justices Phillimore and Pickford, on the 2nd inst., the hearing was concluded of the case of Hardman *v.* Turner and another, on the defendants' appeal from a decision of Mr. Pollock, the Official Referee.

In this case the plaintiff, Mr. Alfred Hardman, brought the action as the trustee of the estate of the late Mr. Wm. Thomas Cannock, a builder and contractor, the defendants being Mr. Edmund Turner and Mrs. Mary Jane Charles.

The plaintiff's case was that a contract was entered into with the defendants in July, 1906, when Mr. Cannock agreed to build two semi-detached houses in Gloucester-road, Hereford, for 590*l.*, the materials and workmanship to be the best of their respective kinds, and the contractor to leave the work clean and perfect. According to the terms of the contract any authority given by the architect, Mr. A. H. Pearson, for any alteration or addition to the work was not to vitiate the agreement, but all omissions or alterations were to be certified for by the architect, and added to or deducted from the amount of the contract price. It was also a term of the contract that any defects appearing in the contract work within three months from the completion arising from the use of improper materials or workmanship were to be made good by the contractor. Defendants alleged that the contract was not completed within the time specified, and that the work was not carried out in accordance with the terms of the contract. The plaintiff claimed 81*l.* 10*s.*, which included certain extras which the defendants said he was not entitled to under the contract.

The case was originally heard before Mr. Pollock, the Official Referee, who gave judgment for the plaintiff for the sum of 56*l.*, and he held that the certificate of the architect was final. Against this decision the defendants now appealed.

Mr. Bosanquet, for the appellants, contended that the architect could not give a final certificate once it was brought to his knowledge that disputes had arisen between the parties. That was a question, he submitted, which the Referee should be directed to inquire into according to the facts which had been laid before him.

Mr. Stewart, for the respondent, said the amount in dispute was so small that the litigation would be a misfortune to everybody except to the lawyers.

Eventually it was decided that the case should go back to the Referee, with the request that he would inform the Court how much he would have allowed in respect of certain omissions and defects in the buildings if he had not put the construction he did upon the terms of the contract, and judgment was reserved pending an answer to this inquiry.

On the 2nd inst. their lordships stated that they had been in communication with the Official Referee, with the result that they had decided to reduce his award from 56*l.* to 44*l.* They gave the defendants the costs of the appeal.

Judgment accordingly.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

February 16.—By MORRIS, MARSHALL, & POOLE (at Clun).

Newcastle, Salop.—Newcastle Court Estate, 367 a. 2 r. 14 p., f. (including timber)	£5,839

February 19.—By G. B. HILLIARD & SON (at Chelmsford).

Chelmsford.—Springfield-rd., Willowdean, f., y.r. 48*l.*	860
33 and 34, Duke-st. (s.), f. and c., y.r. 50*l.*	700
41, Duke-st., c., y.r. 26*l.*	440

February 22.—By KEMSLEYS'.

Rainham, Essex.—Brick House Farm, 38 a. 0 r. 17 p., f.	3,500
Spring Farm, 127 a. 2 r. 11 p., f.	7,000
Upminster, Essex.—Heath Farm, 39 a. 2 r. 34 p., f.	1,850
Brambles Farm, 55 a. 3 r. 3 p., f.	2,800

By RAMSAY, WAINWRIGHT, & CO.

Finsbury Park.—107, Gillespie-rd., u.t. 68 yrs., g.r. 5*l.*, y.r. 34*l.*	245

February 23.—By H. FURZE & CO.

Wallington, Surrey.—2, Blenheim-gdns., f., e.r. 42*l.*	500

By GEO. HEAD & CO.

Stamford Hill.—2, Vartry-rd. (corner shop and stabling), f., y.r. 70*l.*	1,150
4, Vartry-rd. (s.), f. y.r. 42*l.*	445
12 and 14, Vartry-rd. (s), f., y.r. 68*l.*	700

By ERNEST OWERS.

Cricklewood.—41, Chichele-rd., u.t. 83 yrs., g.r. 7*l.* 7*s.*, p.	460

By SMALLPEICE, ALLEN, & CO.

Chelsea.—514, King's-rd., u.t. 46 yrs., g.r. 1*l.*, y.r. 60*l.*	570

By FREDERICK WARMAN.

Southend-on-Sea.—Southchurch-rd., The Glen and 3 acres, u.t. 71 yrs., g.r. 51*l.* 8*s.*, e.r. 100*l.*	400
Stepney.—34 to 42 (even), Bale-st., u.t. 45 yrs., g.r. 17*l.* 10*s.*, w.r. 132*l.* 12*s.*	400
44 to 50 (even), Bale-st., 146, 148, and 150, Harford-st., u.t. 45 yrs., g.r. 17*l.* 10*s.*, w.r. 163*l.* 16*s.*	425
Canonbury.—17, Canonbury-pk. South, u.t. 27½ yrs., g.r. 3*l.*, p.	385
Islington.—3, Terrett's-pl., f., e.r. 38*l.*	350
Highbury.—17, Liberia-rd., u.t. 76 yrs., g.r. 7*l.*, e.r. 42*l.*	370

By EVANS & EVANS (at Stafford).

Reversion to a freehold estate at Little Haywood, estimated value 340*l.* per annum, on the death of a lady, aged 76	4,150

RECENT SALES.—*Continued on page 296.*

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this Number: Competition, —.; Contracts, iv. vi. viii. x.; Public Appointment, xv.; Auction Sales, xxiv.

Certain conditions, beyond those given in the following information, are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bonâ-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

*** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.

Competitions.

MARCH 24.—**Eastleigh.**—HALL.—The London and South-Western Railway Company invite competitive designs for the construction of a hall to be erected adjoining the Railway Institute Building at Eastleigh, near Southampton. A plan of the site and conditions of the competition will be forwarded to any competitor upon the deposit of 1*l.* 1s. Secretary, London and South-Western Railway Company, Waterloo Station, London, S.E.

MARCH 31. — **Middlesbrough.** — NEW LIBRARY.—The Free Library Committee invite plans for proposed new Library to be erected in Dunning-road and Grange-road, East Middlesbrough. Premiums of 50*l.*, 30*l.*, and 20*l.* Conditions, with plan of site, may be obtained on application to Mr. Alfred Sockett, Town Clerk, Municipal Buildings, Middlesbrough. Deposit, 2*l.* 2s. For further particulars see advertisement in our issue of December 26.

APRIL 6.—**Chard, Somerset.**—WATER SUPPLY.—A premium of 20*l.* is offered by the T.C. for the most effective and economical scheme for providing the Borough with a sufficient quantity of pure water. Mr. S. G. Rogers, the Borough Surveyor, will meet intending competitors at his office by appointment.

JULY 31. — **Glasgow.** — LAYING-OUT LAND.—The Patrons of the Royal Incorporation of Hutchesons' Hospital in the City of Glasgow invite competitive designs for laying-out for feuing and building their lands of Thornliebank, in the Parish of Eastwood and County of Renfrew, near the City of Glasgow. The terms and conditions of the competition, and, upon deposit of 3*l.* 3s., skeleton plans showing the situation and boundaries of the different portions of the lands, may be had from the Chamberlains of the Hospital, Messrs. Hill & Hoggan, 194, Ingram-street, Glasgow, with whom designs must be lodged not later than July 31, 1909. Premiums of 100*l.*, 75*l.*, 50*l.*, and 25*l.* respectively will be awarded.

Contracts.

BUILDING.

MARCH 4.—**Southend-on-Sea.**—CONVENIENCE.—The Corporation invite tenders for the erection of a convenience on the cliffs. Plans, etc., may be seen, and bill of quantities, etc., obtained, on deposit of a cheque for 1*l.* 1s., upon application to Mr. Ernest J. Elford, M.Inst.M.E., Borough Surveyor.

MARCH 6-18.—**Cleethorpes.**—SCHOOL.—Lindsey C.C. Education Committee invite tenders for the completion of the building of an elementary school for infants at Cleethorpes, in the County of Lincoln. Bills of quantities, etc., may be had on application to Messrs. Scorer & Gamble, architects, Bank-street-chambers, Lincoln, on payment to them of 2*l.* 2s. The drawings and conditions of contract may be inspected at the offices of the architects.

MARCH 6-18. — **East Ferry, Lincs.**—SCHOOL.—Lindsey C.C. Education Committee invite tenders for building an elementary school at East Ferry, in the County of Lincoln. Bills of quantities, etc., may be had on application to Messrs. Scorer & Gamble, architects, Bank-street-chambers, Lincoln, on payment to them of 2*l.* 2s.

MARCH 6-18. — **Gunthorpe.**—SCHOOL.—Building an elementary school at Gunthorpe. Bills of quantities, etc., may be had on application to Messrs. Scorer & Gamble, architects, Bank-street-chambers, Lincoln, on payment to them of 2*l.* 2s.

MARCH 8-13.—**Darlington.**—FIRE-ESCAPE, ETC.—For additions and alterations to and the erection of a fire-escape at the Darlington Union Workhouse. Drawings, etc., at the Union Offices, Crown-street, Darlington.

* MARCH 8.—**East Grinstead.**—ALTERATIONS.—The East Sussex C.C. invite tenders for proposed alterations and improvement of the Court-house and police buildings at East Grinstead. See advertisement in this issue for further particulars.

MARCH 8. — **Hereford.** — COTTAGES.—Erection of semi-detached and blocks of three cottages for the Hereford Co-operative Housing, Ltd. Drawings, etc., may be seen, and bills of quantities, etc., obtained, at the offices of Messrs. Groome & Bettington, architects and surveyors, Palace-chambers, Hereford. A deposit of 2*l.* 2s. must be paid for bills of quantities

MARCH 8. — **Liverpool.** — REPAIRS.—The Select Vestry invite tenders for jobbing repairs in connexion with the Workhouse, Brownlow-hill, and other Parochial buildings. Forms of tender, etc., may be obtained on application to Mr. H. J. Hagger, Vestry Clerk, Parish Offices, Brownlow-hill.

MARCH 8.—**Stoke-upon-Trent.**—SHELTERS.—Erection of shelters and conveniences, for the Cliffe Bank and Field-place Recreation Grounds. Bills of quantities, etc., upon application to Mr. A. Burton, A.M.Inst.C.E., etc., Borough Engineer and Surveyor, Town Hall, Stoke-upon-Trent.

MARCH 9. — **Bridlington.**—HOUSES.—Erection and completion of three houses and other works for Mr. E. Mainprize. Drawings, etc., may be inspected at the office of Mr. J. Earnshaw, architect, Carlton House, Bridlington.

MARCH 9.—**Hirwain.**—VILLA.—Erection of a villa at Hirwain, Glam. Plans, etc., may be seen either with Mr. W. M. Lloyd, The Lilacs, Hirwain, or at office of Mr. T. Roderick, architect, Clifton-street, Aberdare.

MARCH 9.—**Wrexham.**—ALTERATIONS AND ADDITIONS AT ELECTRICITY WORKS.—Tenders are invited for alterations and additions required at the Electricity Works, Willow-road. Plans, etc., may be seen, and form of tender obtained, at the Borough Engineer's Office, Willow-road

* MARCH 10.—**Brierley Hill.**—SCHOOL.—The Staffs Education Committee invite tenders for new Council School at Mill-street, Brierley Hill, South Staffs. See advertisement, in this issue for further particulars.

MARCH 10. — **Caerau, etc.**—SCHOOLS.—Glamorgan C.C. invite tenders for (1) new school at Caerau; (2) foundations for temporary building at Port Talbot Central Council School; (3) boundary wall at Bargoed Girls' School. Plans, etc., may be seen, and copies of the bill of quantities obtained, for Work No. 1 at the Macsteg County Police-station. Plans may be seen, and copies of the specification obtained, for Work No. 2 at the Port Talbot County Police-station, and for Work No. 3 at the Bargoed County Police-station. Plans, etc., also at offices of Mr. T. Mansel Franklen, Clerk of the C.C., Glamorgan C.C. Offices, Westgate-street, Cardiff.

MARCH 10. — **Edinburgh.** — BANDSTAND, ETC.—The Magistrates and Council invite designs and estimates for a bandstand proposed to be erected in Saughton Public Park. Specification prepared by Mr. J. A. Williamson, A.R.I.B.A., Public Works Office, City Chambers.

MARCH 10.—**Fermanagh.**—RESIDENCE.—Erection of a curate's residence at Garrison, Co. Fermanagh, for the Rev. Patrick A. M'Cleary, P.P. Plans, etc., may be seen at offices of Mr. J. V. Brennan, C.E., architect, Belfast Bank-chambers, Belfast.

MARCH 10. — **Halifax.** — ENGINE-HOUSE.—Masons, joiners, slaters, plumbers, concretors, and steelwork required in the erection of an engine-house at Woodside Mills, Halifax. Plans, etc., may be seen, and bills of quantities obtained, at offices of Messrs. Joseph F. Walsh, F.S.I., & Graham Nicholas, F.R.I.B.A., architects, Museum-chambers, Halifax.

MARCH 10.—**Huddersfield.**—POST-MORTEM ROOM.—West Riding C.C. (Storthes Hall Asylum Sub-committee) invite tenders for the erection of post-mortem room, etc., at the Storthes Hall Asylum, near Huddersfield. Full particulars and bills of quantities may be obtained on application to the County Architect. A deposit of 1*l.* is required. Cheques must be made payable to the West Riding Treasurer, County Hall, Wakefield.

MARCH 10.—**Nottingham.**—NEW SCHOOLS, STANLEY-ROAD.—The Education Committee invite tenders for the erection of a junior and infants' school and technical centre, Stanley-road. Plans may be seen at, and copies of the specification, etc., obtained from, the office of the City Architect, Mr. Frank B. Lewis, Guildhall, on payment of a deposit of 2*l.* 2s.

MARCH 10.—**Trearddur Bay.**—BUNGALOW.—Erection of a new bungalow at Trearddur Bay (on Crecrist Farm, part of). Plans and specifications to be seen at the office of Mr. J. Hughes, architect and surveyor, Penybont, Valley.

MARCH 10.—**York.**—MOTOR GARAGE.—North-Eastern Railway Directors invite tenders for the erection of a motor garage at York. Plans, etc., may be seen, and quantities and further information obtained, upon application to Mr. William Bell, the Company's Architect at York.

MARCH 12.—**Birkby.**—HOUSES.—Works required in the erection of two semi-detached houses in Wheathouse-road, Birkby. Drawings, etc., on application at offices of Mr. Norman Culley, A.R.I.B.A., architect, 13, John William-street, Huddersfield.

MARCH 12. — **Birkwood.** — HOUSE. — Estimates wanted for the mason, etc., work of new dwelling-house to be built at the Farm of Lupus, Lesmahagow (Mr. Cuthbertson, tenant). Estimates wanted for the mason, etc., work of new cottages to be built at Sandknowe, Lesmahagow. Plans, etc., for the former will be shown at the Farm, and for the latter at Pathhead (Mr. E. Haire).

MARCH 13. — **Aberystwyth.**—WAREHOUSE.—Warehouse in Llanbadarn-road, for Mr Samuel. Plans, etc., can be inspected at 12, Northgate-street (Mr. Llewelyn Samuel).

MARCH 13.—**Bradford.**—ALTERATIONS, ETC.—Alterations and additions to Paddock Dyeworks, Pasture-lane (Clayton), Bradford. Plans, etc., may be seen, and quantities obtained, at office of Mr. Sam Spencer, architect, etc., Old Bank-chambers, Great Horton, Bradford.

MARCH 13.—**Cardiff.**—VAGRANTS' WARD.—The Guardians of Cardiff Union invite tenders for the conversion of a laundry into a female vagrants' ward at the Cardiff Workhouse, according to plans, etc., prepared by Mr. Edwin Seward, F.R.I.B.A., Queen's-chambers, Cardiff, from whom bills of quantities may be obtained on payment of 2*l.* 2s.

MARCH 13.—**Stalling Busk.**—CHURCH.—Tenders are invited for the building of a church for the Vicar and Wardens of Askrigg at Stalling Busk. Plans, etc., may be seen at the Vicarage, Askrigg, or at Messrs. Barclay's Bank at Hawes.

MARCH 13. — **Waunarlwydd.** — ALTERATIONS TO CHAPEL.—Alterations, etc., of Sardis Congregational Chapel, Waunarlwydd. Bills of quantities may be obtained on deposit of 3*l.* 3s.

MARCH 13.—**Welshpool.**—WORK AT BANK.—Tenders are invited for certain works required to be done at the Welshpool Savings Bank for the Trustees. Plans, etc., may be seen on application to the Secretary, Mr. John Evans, 24, Broad-street, Welshpool.

MARCH 15.—**Coventry.**—REFUSE DESTRUCTOR BUILDINGS.—The General Works Committee of the Corporation invite tenders for the work required to be executed and materials supplied in the erection of buildings for the proposed refuse destructor, Bishopgate-green. Drawings, general conditions, etc., may be inspected, and bill of quantities obtained, after payment of 1*l.* 1s. has been made to the City Treasurer, on application to the office of Mr. J. E. Swindlehurst, City Engineer and Surveyor, St. Mary's Hall, Coventry.

MARCH 15. — **Glasgow.** — SINGLE-STORY SHED.—The Trustees of the Clyde Navigation invite tenders for the construction of a goods shed on Riverside Quay, Yorkhill, 1,370 ft. long by 100 ft. wide. Drawings may be seen, and specification, etc., obtained, on application to the Trustees' Engineer, at 16, Robertson-street, Glasgow.

MARCH 15. — **Preston.** — WALL. — Preston Burial Board invite tenders for the erection of a wall on the land recently purchased for the extension of the Preston Cemetery. Particulars of the work may be obtained at the office of Messrs. Myres, Veevers, & Myres, 15, Chapel-street, Preston.

MARCH 15. — **Senghenydd.** — CHURCH—Building a church at Senghenydd, near Cardiff, for the Rev. Lloyd Rees. The plans, etc., can be seen, and quantities obtained, at office of Mr. E. M. Bruce Vaughan. F.R.I.B.A., architect Cardiff, on receipt of a deposit of 2*l.* 2s.

MARCH 15.—**Ynyshir.**—CHAPEL, ETC.—The Trustees of Tabernacle C.M. Church, Ynyshir, invite tenders for the erection of their new chapel, vestry, and class-rooms. Plans, etc., to be seen at office of Mr. R. S. Griffiths, M.S.A., architect and surveyor, Tonypandy, and bill of quantities, etc., obtained on payment of 1*l.* 1s.

MARCH 16.—**Shotton and Tanfield.**—SCHOOLS.—The C.C. of Durham invite tenders for new Council school at Shotton Colliery. Alterations and repairs to Tanfield Council School. Plans, etc., may be seen, and bills of quantities obtained, at the office of the County Education Architect, Shire Hall, Durham.

MARCH 19. — **Bootle.** — ERECTION OF PUBLIC ELEMENTARY SCHOOL.—The Corporation invite tenders for the erection of a public elementary Council school in the Orrell district of Bootle. Plans prepared by Messrs. Crouch, Butler, & Savage, architects, 39, Newhall-street, Birmingham, may be seen at the Borough Engineer's Office, and the bill of quantities may be obtained on application at office of Mr. J. Henry Farmer, Town Clerk, Town Clerk's Office, Bootle, on a deposit of 2*l.* 2s.

MARCH 19. — **Castleford.** — SCHOOL.—West Riding Education Committee invite whole or separate tenders for Castleford, Pontefract-road new school. Plans may be seen, and specifications, etc., obtained, on application to the West Riding Architect, County Hall, Wakefield. A deposit of 1*l.* must be sent by separate letter to the West Riding Treasurer, County Hall, Wakefield.

MARCH 19.—**Cleckheaton.**—SECONDARY AND TECHNICAL SCHOOL.—The U.D.C. invite tenders for the various works required in connexion with the erection of a secondary and technical school. Specifications, etc., may be obtained on application at office of Mr. John H. Linfield, Clerk to the Council, Town Hall, Cleckheaton, upon payment of a deposit of 1*l.* 1s. Plans, etc., may be inspected, and other particulars will be furnished, at the office of the architect, Mr. W. H. Thorp, Phœnix-chambers, South-parade, Leeds.

MARCH 19. — **Dodworth.** — SCHOOL. — The West Riding Education Committee invite whole or separate tenders for Dodworth new school, near Barnsley. Plans may be seen, and specification, etc., obtained, on application to the West Riding Architect, County Hall, Wakefield. A deposit of 1*l.* must be sent to the West Riding Treasurer, County Hall, Wakefield.

MARCH 19. — **Wickersley.** — SCHOOL.—The West Riding Education Committee invite whole or separate tenders for Wickersley temporary school. Plans may be seen, and specifications, etc., obtained, on application to the West Riding Architect, County Hall, Wakefield. A deposit of 1*l.* must be sent by separate letter to the West Riding Treasurer, County Hall, Wakefield.

* MARCH 23.—**Islington.**—EXTENSION OF STABLES, ETC.—The Islington B.C. invite tenders for the ex-

tension of existing stables and for repairs to the roof. See advertisement in this issue for further particulars.

MARCH 24.—**Hull.**—MADELEY-STREET BATHS EXTENSION.—The Corporation invite tenders for the construction in reinforced concrete of a swimming pond, 90 ft. by 35 ft., together with sub-structure of main building, 109 ft. by 76 ft. Forms, etc., may be obtained of the City Engineer on payment of 1*l.* Prints of the contract plans will be supplied on payment of 5s., not returnable. Remittances must be made payable to Mr. T. G. Milner, City Treasurer.

MARCH 26.—**Denny.**—STATION BUILDINGS.—Caledonian Railway Company Directors invite tenders for the works to be executed in the construction of new station buildings at Denny. The drawings may be seen at the office of the company's Engineer, Buchanan-street Station, Glasgow, where copies of the specification, etc., may be obtained on payment of 2*l.* 2s.

NO DATE.—**Leeds.**—RESTAURANT.—Bricklayer and mason's, carpenter and joiner's, plumber and glazier's, painter's, ironfounder's, and concretor's work required in the demolition and rebuilding of Mr. F. Klostermann's restaurant premises, Kirkgate, Leeds. Applications to Messrs. Thomas Winn & Sons, architects, 84, Albion-street, Leeds.

NO DATE.—**New Totley.**—VILLA.—Tenders required for the erection of small villa at New Totley, near Sheffield. Apply Mr. Arthur B. Walker, architect, 76, Carver-street, Sheffield.

NO DATE.—**Pontnewydd.**—BUSINESS PREMISES.—Erection of new business premises, hall, bakehouse, and stable, at Pontnewydd, for Messrs. The Co-operative Society, Ltd. Plans, etc., may be seen upon application to Mr. Arthur E. Sheppard, architect and surveyor, 39, High-street, Newport. Quantities supplied. A deposit of 2*l.* 2s.

NO DATE.—**Tudhoe.**—WAREHOUSE.—Tenders invited for the erection of a new warehouse for the Tudhoe Colliery Co-operative Society. Plans, etc., may be seen on the premises any day from 9 a.m. to 4 p.m.

ENGINEERING, IRON, AND STEEL.

MARCH 9.—**Kingston-upon-Hull.**—MOTIVE POWER.—The Guardians invite tenders for the complete installation of electric motive power at the Workhouse Laundry. Print of specification can be obtained on application to Mr. Robert H. Winter, Solicitor, Clerk to the Guardians, St. Mary's-chambers, Lowgate, Hull.

MARCH 10.—**Tralee.**—BORING.—Tralee and Fenit Harbour Commissioners invite tenders for the work of boring for a water supply on the lands of Fenit Without, Co. Kerry. Mr. John Leonard, Secretary, Canal Office, Tralee.

MARCH 15.—**Belfast.**—BRIDGE.—The Improvement Committee invite tenders for the construction of a bridge across the River Lagan at Stranmillis. Drawings, etc., prepared by the City Surveyor. Specifications, etc., may be obtained at the office of the City Surveyor on payment of 1*l.*

MARCH 15.—**Glasgow.**—RENEWAL OF UNDERBRIDGES.—The Directors of the Caledonian Railway Company (Western District) invite tenders for the steelwork to be executed in the renewal of four underbridges:—On the Uddingston and Holytown Line; the Rutherglen and Coatbridge Branch; the London Road Branch; and on the Lanarkshire and Dumbartonshire Railway. Drawings may be seen at the office of the Company's District Engineer, 3, Germiston-street, Glasgow, where copies of the specification, etc., may be obtained on payment of 2*l.* 2s.

MARCH 16.—**Chew.**—VALVES, ETC.—The Joint Committee of Ashton-under-Lyne, Stalybridge, and Dukinfield (District) Waterworks invite tenders for the supply of valves, sluices, pipes, miscellaneous ironwork, etc., required in connexion with Chew Reservoir. Drawings can be seen, and copies of the specification, etc., may be obtained, at the offices of Messrs. G. H. Hill & Sons, civil engineers, Albert-chambers, Albert-square, Manchester, and 3, Victoria-street, Westminster, upon receipt of cheque for 1*l.* 1s.

MARCH 16.—**London.**—GIRDERS.—Great Western Railway Directors invite tenders for the supply of about 80 tons of steel bridge girders and other iron and steel work of British manufacture. Plans, etc., may be seen, and forms of tender and bills of quantities obtained, at the office of the Engineer at Paddington Station, London.

MARCH 16.—**London.**—STEELWORK.—The Great Western Railway Directors invite tenders for the supply and fixing of a new girder and alteration of steelwork of floor of Central Meat Market, Smithfield, over the G.W.R. Goods Depôt. Plans, etc., may be seen, and forms of tender, etc., obtained at the office of the Engineer at Paddington Station, London.

MARCH 17.—**St. Austell.**—ENGINES, PUMPS, ETC.—The R.D.C. invite tenders for engines, pumps, and water mains in connexion with the supply of water from Penwithick, St Austell, to certain parts of the Rural District. Any further information can be obtained from the Engineer, Mr. H. S. Hancock, Sydney-place, St. Austell.

MARCH 20.—**New Mills.**—SINKING SHAFTS.—Sinking and lining a pair of elliptical shafts at Valleyfield, New Mills. Copies of the specification, etc., may be had by applying to the Fife Coal Company, Ltd., Cowdenbeath.

MARCH 24.—**Bury.**—STEELWORK, ETC.—The Corporation of Bury invite tenders for works in connexion with the erection of an electricity generating station at Chamber Hall. Drawings may be seen, and specifications, etc., obtained, upon application to Mr. Arthur W. Bradley, A.M.Inst.C.E., Borough Engineer, Bank-street, and on payment of a deposit of 2*l.* for each contract (five).

MARCH 24.—**Dundee.**—STEEL BUOYS.—The Trustees of the Harbour of Dundee invite tenders for six steel can buoys. Drawings, etc., may be seen or obtained at the office of Mr. J. Hannay Thompson, M.Inst.C.E., Harbour Engineer, Harbour Engineer's Office, Dundee.

MARCH 31.—**York.**—LIGHT RAILWAYS.—The Corporation of York invite tenders for the construction of light railways. Plans may be seen, and specifications, etc., obtained, from the Town Clerk, on depositing 25*l.*

NO DATE.—**Scotstoun.**—ELECTRIC LIGHTING.—The Renfrew Landward School Board invite specification and tender for work required at new school in course of erection at Victoria Drive, Scotstoun. Particulars on application to Messrs. Kerr & Watson, architects, Johnstone.

MISCELLANEOUS.

MARCH 8.—**Stafford.**—TEAM LABOUR.—The R.D.C. invite tenders for carting stone, etc., for the repair of the highways. Printed forms of tender may be obtained from Mr. William Morgan, Clerk to the Council, 4, Martin-street, Stafford, or from Mr. W. J. Lees, Surveyor, The Oaks, Walton-on-the-Hill, near Stafford.

MARCH 8.—**Wolstanton.**—SCAVENGING.—The United U.D.C. invite tenders for the removal of house refuse, night soil, etc. A plan of the districts may be inspected, and forms of tender obtained, at the office of the Surveyor, Mr. W. F. Slater, Overhouse-chambers, Burslem.

MARCH 9.—**Fareham.**—FENCING.—The R.D.C. invite tenders for the erection of about 140 yds. of steel and iron fencing at Paulsgrove, Cosham Parish. Plans, etc., can be seen, and full particulars obtained, at the office of the Surveyor, Mr. J. F. Whitear, Southampton-road, Fareham.

MARCH 10.—**Watford.**—PLUMBERS' WIPED JOINTS.—The Watford U.D.C. invite tenders for plumbers' wiped joints on lead pipes for their Water Supply Department. Specification, etc., can be inspected at the office of the Engineer and Surveyor to the Council, 14, High-street, Watford.

MARCH 10.—**Wellingborough.**—TEAM LABOUR.—The R.D.C. invite tenders for team labour on the several roads. Tenders must be made upon forms which will be furnished on application to the Assistant Surveyor, Mr. G. F. Bearn, of Wellingborough.

MARCH 11.—**Escrick.**—CARTAGE.—Escrick R.D.C. invite tenders for the cartage of road material during the year. Forms of tender, and all other information, may be obtained from the Councillor of any Parish in the District; from the Surveyor, Mr. Hy. Leckenby, Dunnington, York; or from Mr. Fred. A. Camidge, Clerk to the above Council, 3, Stonegate, York.

MARCH 12.—**Blackburn.**—SCAVENGING.—Blackburn R.D.C. invite tenders for the cleansing of earth-closets, privies, ashpits, and cesspools in the Parish of Livesey for a period of one year. Particulars and forms of tender may be obtained from Mr. John Birch, Clerk, 4, King-street, Blackburn.

MARCH 13.—**Cardiff.**—FURNITURE.—The Guardians invite tenders for the supply of articles of furniture to the Hospital, Headquarters Homes, Ely, according to the standard samples, which may be seen at Headquarters Homes, Ely, by arrangement with the Superintendent. Forms of tender to be obtained from Mr. Arthur J. Harris, Clerk, Union Offices, Queen's-chambers, Cardiff.

MARCH 13.—**Cardiff.**—RAILINGS.—The Guardians invite tenders for providing and fixing iron railings, etc., at the hospital, Headquarters Homes, Ely, according to specification, a copy of which, together with the form of tender, may be obtained from Mr. Arthur J. Harris, Clerk, Union Offices, Queen's-chambers, Cardiff.

MARCH 13.—**Newbury.**—FLUSHING VAN.—The R.D.C. invite tenders for supplying a four-wheeled flushing van, the particulars of which may be obtained by applying at office of Mr. W. Church, Surveyor, Newtown-road, Newbury.

MARCH 13.—**Newbury.**—HAULING.—Newbury R.D.C. invite tenders for the hauling of granite from stations and gravel from various pits. Full particulars, etc., can be obtained from Mr. E. H. Horncastle, Highway Surveyor, 2, Edinburgh-terrace, Newbury.

MARCH 15.—**Bucklow.**—CARTING.—Bucklow R.D.C. invite tenders for the carting of road materials. Forms of tender, etc., will be supplied on application to Mr. Joseph Burgess, Highway Surveyor, Tabley, Knutsford.

MARCH 15.—**Rotherham.**—SCAVENGING.—Rotherham R.D.C. invite tenders for the removal and tipping of night-soil and refuse. Further particulars and forms of tender may be obtained from Mr. B. Hey, Surveyor, Imperial-buildings, Rotherham.

✱ MARCH 16.—**Denmark Hill, S.E.**—OAK FENCING.—The London C.C. invites tenders for supply and erection of open pale oak fencing at Ruskin Park, Denmark Hill, S.E. See advertisement in this issue for further particulars.

MARCH 16.—**Gretton.**—CARTING.—Gretton R.D.C. invite tenders for the carting of about 880 tons of granite. Forms of tender may be obtained on application (enclosing a stamped addressed envelope) to Mr. Fredk. Oakley, Clerk, Council Offices, High-street, Uppingham.

MARCH 16.—**Mitcham.**—SCAVENGING.—The Mitcham Parochial Committee invite tenders:—(1) For the weekly collection and removal of house and garden refuse; (2) for the supply of horses and carmen for street watering. Forms of tender, etc., may be obtained at the offices of the R.D.C., Town Hall, Crowdon.

MARCH 16.—**Uppingham.**—CARTING.—Uppingham R.D.C. invite tenders for the carting of about 3,500 tons of granite. Forms of tender may be obtained on application (enclosing a stamped addressed envelope) to Mr. Fredk. Oakley, Clerk, Council Offices, High-street, Uppingham.

MARCH 17.—**Hereford.**—HAULING.—Hereford R.D.C. invite tenders for hauling for the ensuing year, the particulars of which, with forms of tender, can be obtained from Mr. H. Bishop, Surveyor, Moreton-on-Lugg, Hereford, or Mr. P. R. Gibbs, Surveyor, 23, Breinton-road, Hereford.

MARCH 20.—**Wokingham.**—HAULAGE.—The R.D.C. invite tenders for the haulage of gravel, etc. Further particulars and the necessary forms can be obtained on application to the Surveyor, Mr. S. Tebbitt, King-street, Wokingham.

MARCH 22.—**Romford.**—SCAVENGING.—Romford R.D.C. invite tenders for removal and disposal of house refuse and earth closet refuse. Specifications may be seen, and particulars obtained, from the Council's Offices.

MARCH 23.—**Ilford.**—VANS.—Ilford U.D.C. invite tenders for the supply of three drift vans. Full particulars and form of tender can be obtained on application to Mr. H. Shaw, M.Inst.C.E., Engineer and Surveyor to the Council, Town Hall, Ilford, Essex.

✱ MARCH 23.—**London.**—HOARDINGS, ETC.—The London C.C. invites tenders for erection of hoardings, shoring, fans, fencing, notice boards, etc. See advertisement in this issue for further particulars.

✱ MARCH 23.—**London.**—REPAIRS.—The London C.C. invites tenders for repairs, etc., to fire brigade stations, offices, stores, and other buildings belonging to the Council. See advertisement in this issue for further particulars.

MARCH 25.—**Fareham.**—HAULAGE.—The R.D.C. of Fareham invite tenders for the haulage and hire carting within their district. Forms of tender may be obtained on application at the Union Offices, West-street, Fareham.

MARCH 25.—**Fareham.**—SCAVENGING.—The R.D.C. of Fareham invite tenders for removal of house refuse in Parish of Cosham, and from Alexandra Hospital, Cosham. Mr. Alfred Laker, Clerk to the Council, Union Offices, West-street, Fareham.

MARCH 30.—**Beaconsfield.**—SCAVENGING.—The U.D.C. invite tenders for the removal of the road trimmings, scrapings, and refuse. Mr. G. H. Charsley, Clerk to the Council.

✱ APRIL 16.—**Bloemfontein (O.R.C.).**—ELECTRIC LIGHT FITTINGS.—The Government of the Orange River Colony invites tenders for electric light fittings for new law courts at Bloemfontein. See advertisement in this issue for further particulars.

NO DATE.—**Wortley.**—CARTING.—Wortley R.D.C. invite tenders for the cartage of materials. Particulars and forms on written application to Mr. F. Crawshaw, Surveyor, 45, Exchange-street, Sheffield.

PAINTING, etc.

MARCH 8.—**Motherwell.**—PAINTING.—Tenders wanted for external painter work at Middle Ward Hospital, Motherwell. Copies of specification and schedule may be obtained from the Medical Officer of Health, District Offices, Hamilton.

MARCH 9.—**Barnstaple.**—PAINTING.—Barnstaple Education Committee invite tenders for the painting of the outside of the Cyprus-terrace Infants' School, Newport. A specification of the work may be seen at the office of the Borough Surveyor.

MARCH 11.—**Walsall.**—PAINTING.—The Guardians invite tenders for the painting of portions of the Workhouse Buildings, in accordance with a specification to be seen on application to the Master of the Workhouse.

MARCH 12.—**Gravesend.**—PAINTING.—The T.C. invite tenders for painting and decorating the interior of the Market. Specification may be seen at the Borough Surveyor's Office, Town Hall, Gravesend.

MARCH 12.—**Romney Marsh.**—LIME-WASHING, ETC.—The Guardians invite tenders for stopping and lime-washing the Workhouse and Buildings. Forms of tender can be obtained upon application to the Master of the Workhouse at New Romney.

MARCH 13.—**Cardiff.**—PAINTING.—The Guardians invite tenders for internal painting and papering at the Ely Workhouse, according to specification, a copy of which, together with the form of tender, may be obtained from Mr. Arthur J. Harris, Clerk, Union Offices, Queen's-chambers, Cardiff.

MARCH 15.—**Dublin.**—PAINTING.—Great Northern Railway Company (Ireland) Directors invite tenders for cleaning, painting, etc., the roofwork of the company's Amiens-street Terminus. Specification at the office of Mr. W. H. Mills, Engineer-in-Chief, Amiens-street Terminus, Dublin. Forms supplied by the company.

MARCH 15.—**Gosforth.**—PAINTING.—The Committee of Visitors of the Newcastle-upon-Tyne City Lunatic Asylum, Gosforth, invite tenders for painting. Form of tender may be had on application to the Clerk of the Asylum.

ROADS, SANITARY, AND WATER WORKS.

MARCH 8.—**Bolsover.**—STREET WORKS.—Bolsover U.D.C. invite tenders for materials and work required in metalling, paving, curbing, channelling, and draining railway side street. Plans, etc., at the office of Mr. W. G. H. Browne, Ivan House, Bolsover, and bills of quantities may be obtained on payment of 1*l.* 1s.

MARCH 8.—**Edinburgh.**—ASPHALTING.—The Magistrates and Council invite tenders for asphalte floors, etc., at the new Corn Market, Gorgie, in accordance with the plans, etc., prepared by Mr. J. A. Williamson, A.R.I.B.A., Public Works Office, City Chambers, who will furnish intending offerers with schedules of quantities and forms of tender

MARCH 8.—**Leeds.**—PAVING, ETC.—The Highways Committee invite tenders for the paving and flagging of streets. Drawings may be seen at the City Engineer's Office, Municipal Buildings. Forms of tender, etc., may be obtained, and copies of the documents forming the contract inspected, on application at the Highways Office, 155, Kirkstall-road.

MARCH 8.—**Manchester.**—ROAD WORKS.—The Withington Committee invite tenders for works required in draining, kerbing, flagging, channelling, and tar macadamising roads, Chorlton-cum-Hardy. Plans, etc., can be seen, and a form of tender, etc., obtained, from the Surveyor to the Committee, Town Hall, West Didsbury.

MARCH 8.—**New Malden.**—MAKING-UP.—The Maldens and Coombe U.D.C. invite tenders for the making-up of Dunbar-road. The drawings, etc., may be seen, and specifications, etc., obtained, on application to the Engineer and Surveyor, Mr. Reginald H. Jeffes, A.M.Inst.C.E., upon payment of a deposit of 3*l.* 3s.

MARCH 8.—**Perth.**—CAUSEWAYING.—The Perth T.C. invite tenders for the causewaying of the Shore-road, from M'Quibban's-buildings to Electric Generating Station. Plan, etc., can be seen, and specifications, etc., obtained, at the office of Mr. Robert M'Killop, Burgh Surveyor, 16, Tay-street, Perth.

MARCH 8.—**Yardley.**—EXTENSION OF SEWERS AT ACOCK'S GREEN.—Yardley R.D.C. invite tenders for the provision and construction of foul-water sewers. Plans, etc., may be seen on application to the Engineer and Surveyor, Mr. Arthur W. Smith, at the Council House, Sparkhill, near Birmingham. Specification, etc., may be obtained on payment of 3*l.* 3s. to Mr. Francis Ladbury Thompson, Clerk of the Council, the Council House, Sparkhill, near Birmingham.

MARCH 9.—**Brighton.**—LAYING WATER MAINS.—The B.C. invite tenders for the laying of 1,600 yds. of 3-in. water mains and other works for the purpose of supplying water to the Parish of Telscombe. The specification, etc., may be obtained on application at office of Mr. Hugo Talbot, Town Clerk, Town Hall, Brighton.

MARCH 9.—**East Worlington.**—CULVERT.—South Molton R.D.C. invite tenders for the construction of a culvert over a portion of the stream at Little Witheridge, and for the erection of a retaining wall with iron fencing, and the removal of a portion of the hill adjoining. Plan, etc., prepared by Mr. W. S. Gardner, the Surveyor to the Council, which can be inspected at his house, Rack Mead Cottage, Chittlehampton; at Mr. Daniel Butt's, Little Witheridge; and at office of Mr. Fred Day, Clerk to the R.D.C., South Molton.

MARCH 10.—**Macduff.**—WATERWORKS.—Estimates are wanted for supplying and laying about five miles of cast-iron pipes, also a small concrete reservoir. The plans, etc., may be seen with Messrs. Jenkins & Marr, C.E., and architects, 16, Bridge-street, Aberdeen, who will supply schedules of quantities on deposit of 2*l.* 2s.

MARCH 10-30.—**Midsomer Norton.**—SEWERAGE WORKS.—Midsomer Norton U.D.C. invite tenders for the execution of a scheme of sewerage for the Hamlet of Westfield, in the Parish of Midsomer Norton. Contractors are invited to apply to the Engineer to the Council, Mr. William F. Bird, C.E., of Midsomer Norton, who will furnish bills of quantities, etc., on receipt of a deposit of 1*l.* 1s. Plans, etc., may be seen at the office of the Engineer.

MARCH 10.—**Smallthorne.**—STREET WORKS.—The U.D.C. of Smallthorne invite tenders for the execution of works in Back Cliffe-street. A specification, etc., of the proposed work, and a form of contract, may be inspected at the Council Offices, Smallthorne.

MARCH 10-17.—**South Shields.**—PRIVATE STREET WORKS.—The D.C. invite tenders for road works, Grosvenor-gardens, at Harton. Names to the Surveyor, Mr. Thomas T. Bains, C.E., at the Council Offices, from whom bills of quantities, etc., can be had.

MARCH 12.—**Preston.**—PAVING, ETC.—The Corporation invite tenders for the works required in levelling, paving, etc., and making good the back roads between Deepdale-road and Somerset-road. Plan, etc., may be seen, and schedule of quantities and form of tender obtained, at the office of the Borough Surveyor, Town Hall, Preston.

MARCH 13.—**Beaminster.**—WATERWORKS.—Beaminster R.D.C. invite tenders for the supply, delivery, laying, and jointing of about 750 yds. of 3-in. cast-iron socket pipes, with appendages, for extension of the mains for the water supply for the town of Beaminster to Newtown and Shortmoor. Drawings, etc., may be seen only at the office of Mr. Robert Leigh, Clerk to the Beaminster R.D.C., Beaminster, Dorset.

MARCH 13.—**Overstrand.**—MAKING-UP.—The Erpingham R.D.C. invite tenders for the making-up of Cliff-road and Thurst-road, Overstrand. Plans, etc., can be inspected at the house of Mr. Robert Mann, District Highway Surveyor, Cromer-road, Holt. Specifications and forms of tender may be obtained of Mr. Mann on deposit of 1*l.* 1s.

MARCH 15.—**Chertsey.**—FOOTPATHS.—Chertsey U.D.C. invite tenders for the supply of materials and for the reinstatement of certain footpaths situate at Chertsey and Addlestone. Copies of the specifications, etc., may be obtained at the Council Surveyor's Office, 14, Guildford-street, Chertsey, during office hours, on payment of 1*l.* 1s.

MARCH 15.—**Hounslow.**—STREET WORKS.—The U.D.C. of Heston and Isleworth invite tenders for the execution of private street works at Victoria-avenue, Hounslow. The plans, etc., can be seen, and bills of quantities, etc., obtained, from Mr. J. G. Carey, the Engineer and Surveyor to the Council, Council House, Hounslow, on payment of the sum of 1*l.* 1s.

MARCH 15.—**Notton.**—WATER SUPPLY.—Barnsley R.D.C. invite tenders for laying a 2-in. and 3-in. cast-iron water service pipe line from near Notton Station, Great Central Railway, to Notton Village. Plans, etc., may be seen, and bill of quantities obtained, at offices of Messrs. Crawshaw & Wilkinson, surveyors, 13, Regent-street, Barnsley.

MARCH 15.—**Plymouth.**—MAKING-UP, ETC.—Making-up and completing streets and lanes. Plans, etc., may be seen at offices of Mr. James Paton, Borough Engineer, Municipal Offices, Plymouth.

MARCH 15.—**Rotherham.**—STREET WORKS.—Rotherham R.D.C. invite tenders for the levelling, metalling, kerbing, channelling, and making-up of the street known as Park-street, at Swallownest, in the parish of Aston-cum-Aughton. Plans, etc., prepared by Mr. H. B. Hey, Surveyor of the Council, may be seen at his offices, Imperial-buildings, Rotherham.

MARCH 15.—**Yardley.**—MASONS', PAVIORS', SURFACE WATER DRAINERS', AND ROAD WIDENING, KERBING, CHANNELLING, AND PAVING WORKS.—The R.D.C. invite tenders for connexion of private drains to sewers. Specification, etc., may be obtained on application to Mr. Arthur W. Smith, the Engineer and Surveyor to the Council, at the Council House, Sparkhill, near Birmingham, on payment of a deposit of 3*l.* 3s. to Mr. Francis Ladbury Thompson, Clerk of the Council, Council House, Sparkhill, near Birmingham.

MARCH 16.—**Brigg.**—MAKING-UP.—The U.D.C. of Brigg invite tenders for the making-up of Saw Mill-lane, Brigg, with Metal. A plan can be seen, and specifications, etc., can be obtained, at office of Mr. G. S. Sowter, Clerk to the Council, Brigg.

MARCH 17.—**Windygates and Balcurvie.**—SEWERS.—3,200 lin. yds. of fireclay sewer pipes of 9 in., 10 in., and 12 in. diameter, and the construction of manholes at Windygates and Balcurvie for the Kirkcaldy District Committee of the Fife C.C. Plans may be seen, and copies of the specification, etc., obtained at the office of Mr. William Lockhart, C.E., 220, High-street, Kirkcaldy, on payment of a deposit of 1*l.*

MARCH 20.—**Linlithgow.**—SEWERS, ETC.—The Bathgate District Committee invite tenders for the construction of about 2,500 yds. of 6-in. to 9-in. sewers, sedimentation tanks, and relative works. Plans may be seen, and copies of the specification, etc., obtained, at the office of Messrs. Middleton, Hunter, & Duff, MM.Inst.C.E., 42, Frederick-street, Edinburgh, on payment of 1*l.* An assistant engineer will meet intending offerers at Bathgate Station about 9.30 on March 5.

MARCH 24.—**Braintree.**—SEWERAGE WORKS.—Braintree U.D.C. invite tenders for sewerage and sewage disposal works. Plans may be seen at the office of the engineers, Messrs. Sands & Walker, Milton-chambers, Nottingham, and copies of conditions, etc., can be obtained on deposit of 3*l.* 3s.

MARCH 27.—**Ashborne.**—SEWERAGE WORKS.—The U.D.C. of Ashborne invite tenders for the construction of new stoneware and iron pipe sewers, Dortmund and septic tanks, filter beds, etc. The plans may be seen, and specifications, etc., obtained, at the office of the engineer, Mr. W. H. Radford, C.E., Albion-chambers, King-street, Nottingham, on deposit of 3*l.* 3s. A copy of the plans, etc., may also be seen at the Surveyor's office, Town Hall, Ashborne.

NO DATE.—**Leeds.**—WATER MAINS.—Contractor wanted to lay 515 yds. cast-iron water main (pipes provided). Plans of levels and particulars at Ardsley Blastfurnaces.

STONES, MATERIAL, AND STORES.

MARCH 8.—**Bolton.**—ARTICLES.—The Waterworks Committee of the Corporation invite tenders for the supply and delivery of articles. Specifications, etc., may be obtained on application at the office of the Joint Waterworks Engineers, Town Hall, Bolton.

MARCH 8.—**Chertsey.**—ROAD MATERIALS.—Chertsey R.D.C. invite tenders for the supply of road materials for six months. Forms of tender, etc., may be obtained of Mr. W. Durrant, Surveyor, Spinney-hill, Addlestone.

MARCH 8.—**Great Yarmouth Port and Haven.**—MATERIALS.—The Great Yarmouth Port and Haven Commissioners invite tenders for the supply of painters' and plumbers' materials and oils, etc. Forms of tender and specifications can be obtained on application at office of Mr. J. Tolver Waters, Clerk, 2, Quay, Great Yarmouth.

MARCH 8.—**Liverpool.**—MATERIALS.—The Select Vestry invite tenders for the supplying by contract. Printed form to be obtained on application at the Parish Offices, Brownlow-hill.

MARCH 8.—**Newcastle.**—MATERIALS.—The Committee of Visitors of the Newcastle-upon-Tyne City Lunatic Asylum, Gosforth, invite tenders for the supply of paint, oils, varnish, glass, brushes, and timber. Forms of tender may be had on application to the Clerk of the Asylum.

MARCH 8.—**Nuneaton.**—ANNUAL CONTRACTS.—Tenders are invited for the supply of materials during the twelve months. Conditions of contract, etc., may be obtained on application at office of Mr. F. C. Cook, Borough Surveyor, Municipal Offices, Nuneaton.

MARCH 8.—**Stafford.**—GRANITE, ETC.—Stafford R.D.C. invite tenders for granite and slag. Printed forms of tender may be obtained from Mr. William Morgan, Clerk to the Council, 4, Martin-street, Stafford.

MARCH 8.—**Warrington.**—GRANITE, ETC., CUBES.—Warrington Paving and Sewerage Committee invite tenders for 2,000 tons of four granite, whinstone, or syenite cubes. Forms of tender, etc., may be obtained at the office of the Borough Surveyor, Town Hall.

MARCH 8.—**Whitefield.**—MATERIALS.—The U.D.C. invite tenders for the supply of materials. Specifications, etc., may be obtained on application to Mr. C. H. Wright, C.E., Surveyor, at the Council Offices.

MARCH 8.—**Wokingham.**—OIL.—The R.D.C. of Wokingham invite tenders for the supply and delivery of oil at their Water Works and Sewage Works at Sonning and Wargrave respectively. Forms of tender will be sent on application. Mr. John F. Sargeant, Clerk, Council Offices, Wokingham.

MARCH 9.—**Eston.**—MATERIALS.—Eston U.D.C. invite tenders for the supply of articles. Further information and forms of tender may be obtained on application to Mr. C. McDermid, District Surveyor, Council Offices, Grangetown, S.O., Yorks.

MARCH 9.—**London.**—STORES.—The Great Central Railway Company invite tenders for the supply of stores and materials. Specifications, etc., can be obtained from Mr. Walter Williams, Stores Superintendent, Great Central Railway, Gorton, Manchester, and also on personal application at the sample room.

MARCH 9.—**Manchester.**—STEEL BARS, ETC.—The Tramways Committee invite tenders for the supply and delivery of (*a*) steel tie bars; (*b*) steel fishplates. Specifications, etc., may be obtained on application to Mr. J. M. M'Elroy, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

MARCH 9.—**Mountain Ash.**—PIPES, ETC.—The U.D.C. invite tenders for (1) cast-iron pipes and specials; (2) wrought-iron tubing and specials; (3) stoneware pipes and specials. Specifications may be seen, and forms of tender obtained, on application to Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

MARCH 9.—**Mountain Ash.**—MATERIALS.—Mountain Ash U.D.C. invite tenders for limestone, gravel, etc. Specifications may be seen, and forms of tender obtained, on application to Mr. W. G. Thomas, Surveyor to the Council, Town Hall, Mountain Ash.

MARCH 9.—**Mountain Ash.**—MATERIALS.—The U.D.C. invite tenders for the supply of ironmongery, hardware, lead-pipe, and sundry goods for the year. Forms of tender may be obtained from Mr. W. G. Thomas, Surveyor to the Council, Town Hall, Mountain Ash.

MARCH 9.—**Preston.**—MATERIALS.—The Corporation invite tenders for the supply and delivery of articles. Specification, etc., may be obtained on application at the offices of the Borough Surveyor, Town Hall, Preston.

MARCH 9.—**Wardle.**—MATERIALS.—Wardle U.D.C. invite tenders for materials and work for the year. Forms of tender may be had from the Surveyor, Council Offices, Wardle, near Rochdale.

MARCH 10.—**Aylesbury.**—MATERIALS.—Aylesbury U.D.C. invite tenders for the supply of materials and stores for the year ending March 31. Specifications, etc., may be obtained on application to Mr. W. H. Taylor, Surveyor to the Council, Town Hall, Aylesbury, on receipt of a stamped, addressed foolscap envelope.

MARCH 10.—**Bury.**—STORES.—Tenders for the supply of stores. Forms of tender and further information may be obtained upon application to Mr. H. Simmonds, Engineer and Manager, Gasworks, Bury.

MARCH 10.—**Dunbartonshire.**—WHINSTONE.—For whinstone metal for one year. Copies of the specification may be procured from the Clerk, Mr. Hugh Hutcheson, at his office, 115, Wellington-street, Glasgow, or the Surveyor, Mr. Archibald Wilson, at his office, County-buildings, Dunbarton.

MARCH 10.—**Rathdown.**—SUPPLIES.—The Board of Guardians invite tenders for ironmongery, plumbing work, timber and building materials, etc. Forms of tender can be had on application to Mr. Patrick Cunniam, Clerk of the Union, Clerk's Office, Loughlinstown.

MARCH 10.—**Smethwick.**—STORES.—The Corporation of Smethwick invite tenders for the supply of materials and articles for the year. Forms of tender may be obtained from Mr. C. J. Fox Allin, Borough Surveyor, Council House.

MARCH 10.—**Twickenham.**—CONTRACTS.—The U.D.C. invite tenders for materials. Forms of tender, etc., may be obtained on application to Mr. Fred W. Pearce, F.S.I., Surveyor to the Council, Town Hall, Twickenham.

MARCH 10.—**Tynemouth.**—MATERIALS.—The Guardians invite tenders for rough rubble whinstone, for the cartage of stone from the North Shields Railway Station to the Workhouse, and for the cartage of wood.

MARCH 10.—**Watford.**—TOOLS, MATERIALS, ETC.—The U.D.C. invite tenders for various articles, including tools, materials, disinfectants, ironwork, timber, etc. Printed forms of tender to be obtained at the Council Offices, 14, High-street, Watford.

MARCH 11.—**Nottingham.**—MATERIALS.—The Tramways Committee invite tenders for the supply of materials. Specifications, etc., may be obtained by applying to Mr. John Aldworth, General Manager, Beastmarket-hill, on payment of 5s.

MARCH 11.—**Wimborne.**—ROAD MATERIALS, ETC.—Wimborne and Cranborne R.D.C. invite tenders for quarrying, sifting, breaking, and yarding gravel, and for team work. Forms of tenders, etc., can be had at once on application at the office of the Clerk to the Council, or at the office of Mr. R. T. S. Seymour, District Surveyor, Wimborne Minster.

MARCH 12.—**Cardiff.**—BUILDING MATERIALS.—The Guardians invite tenders for twelve months' supply of building materials and ironmongery, oils and paints, and glass and glazing for the Cardiff and Ely Workhouses. Forms of tender to be obtained from Mr. Arthur J. Harris, Clerk, Queen's-chambers, Cardiff.

MARCH 12.—**Chesterton.**—GRANITE.—Chesterton R.D.C. invite tenders for about 5,000 tons of broken Leicestershire granite. Forms of tender may be had upon application to the District Surveyor, Mr. J. Dunn, Brunswick House, Cambridge.

MARCH 12.—**Exeter.**—GOODS.—The Exeter City Council invite tenders for the supply and delivery of goods for a period of one year. Printed schedule, specification, etc., can be obtained on application to Mr. Thomas Moulding, City Engineer and Surveyor, Municipal Offices, Exeter.

MARCH 12.—**Lanark.**—TOOLS, FENCING, MATERIALS, DRAIN PIPES, CEMENT.—The District Committee of the Middle Ward of the County of Lanark invite tenders for materials. Copies of the specifications, etc., may be obtained from Mr. James Watson, Road Surveyor, Strathaven; Mr. John Clarke, Road Surveyor, Hamilton; Mr. William A. Chapman, Road Surveyor, Airdrie; or from Mr. W. E. Whyte, District Clerk, Hamilton.

MARCH 12.—**Lancaster.**—GOODS.—The Visiting Committee of the County Lunatic Asylum, Lancaster, invite tenders for supplying goods. Printed forms of tender may be obtained on application to Mr. Jno. R. Wilson, Clerk and Steward, Clerk's Office, at the Asylum.

MARCH 12.—**Preston.**—STORES.—The Corporation of Preston invite tenders for the supply of general stores. Schedules may be obtained on application to the Engineer and General Superintendent, Dock Offices, Preston.

MARCH 12.—**Staines.**—ROAD MATERIALS.—Staines, U.D.C. invites tenders for the supply of materials for the current year. Forms of tender and all particulars can be obtained of Mr. E. J. Barrett, A.M.Inst.C.E., Engineer and Surveyor, Town Hall, Staines.

MARCH 13.—**Bucklow.**—MATERIALS.—The Guardians of the Bucklow Union invite tenders for the supply of goods or materials. Forms of tender, etc., may be obtained on application to Mr. George Leigh, Clerk to the Guardians, Union Offices, Knutsford.

MARCH 13.—**Erpingham.**—ROAD MATERIALS, ETC.—Erpingham R.D.C. invite tenders for the supply of road materials and team labour. Forms of tender can be obtained on application to Mr. Robert Mann, Holt, District Surveyor.

MARCH 13.—**Godstone.**—MATERIALS.—The R.D.C. of Godstone Highways and Bridges Committee invite tenders for materials. Forms of tender, etc., can be obtained from the office of Mr. Geo. E. Crowter, Engineer and Surveyor to the R.D.C. of Godstone, Godstone, Surrey.

MARCH 13.—**Halifax.**—MATERIALS.—The Education Committee invite tenders for timber for joiner's and manual instruction workshops; ironmongery for ditto. Further particulars may be obtained at the Education Offices, 22, Union-street.

MARCH 13.—**Rye.**—MATERIALS.—The R.D.C. invite tenders for the supply of materials. For further information and forms of tender apply to the District Surveyor, Mr. H. J. Elliott, Winchelsea, Sussex.

MARCH 13.—**Selby.**—ROAD MATERIALS.—Selby R.D.C. invite tenders for the supply of materials for the repair of the roads in their district. Forms of tender may be obtained from Mr. E. Townend, Clerk, Council Offices, 1, Abbey-place, Selby.

MARCH 13.—**Wellingborough.**—GRANITE.—The R.D.C. of Wellingborough invite tenders for the supply of Hartshill, Mount Sorrel, and other granite. Forms of tender may be had of the Clerk of the Council.

MARCH 13.—**Wing.**—GRANITE, ETC.—Wing R.D.C. invite tenders for the supply and delivery of 1,000 tons of granite and 1,000 tons slag, sand, and gravel. Tender forms may be obtained from the Surveyor, Mr. M. G. Gurney, Leighton Buzzard.

MARCH 15.—**Battersea.**—STORES.—Battersea B.C. invite tenders for materials, etc. Forms of tender containing full particulars may be obtained at the Town Hall, or by sending Mr. W. Marcus Wilkins, Town Clerk, Town Hall, Battersea, stamped addressed envelope under cover, endorsed "Tender form."

MARCH 15.—**Bucklow.**—STONE.—Bucklow R.D.C. invite tenders for the supply of blue Welsh Penmaenmawr setts, small stones, etc. Further information and forms of tender may be obtained from Mr. Joseph Burgess, Tabley, Knutsford.

MARCH 15.—**Chertsey.**—MATERIALS.—Chertsey U.D.C. invite tenders for the supply of materials and for the reinstatement of certain footpaths situate at Chertsey and Addlestone. Copies of the specifications, etc., may be obtained at the Council Surveyor's Office, 14, Guildford-street, Chertsey, during office hours, on payment of 1*l.* 1s.

MARCH 15.—**Edinburgh.**—ANNUAL CONTRACTS.—Tenders are invited for works for one year. Schedules and forms of tender may be had at the office of the City Superintendent of Works, City Chambers.

MARCH 15.—**Edinburgh.**—SUPPLIES, ETC.—The Corporation invite offers for works and supplies for one year. Forms may be obtained from the Superintendent of Works, Royal Exchange, and the City-road Surveyor, City Chambers; and the Residential Electrical Engineer, Dewar-place.

MARCH 15.—**Great Yarmouth.**—STORES.—The Great Yarmouth T.C. invite tenders for the supply of materials. Forms of tender, etc., can be obtained on application at the Borough Surveyor's Office.

MARCH 15.—**Northwich.**—SUPPLIES, ETC.—The U.D.C. of Northwich invite tenders for the supplies and works for the year ending March 31, 1910. Forms of tender on application to Mr. J. Arthur Cowley, Clerk of the Council, Council Offices, Northwich.

MARCH 15.—**Spennymoor.**—ROAD MATERIAL.—The Spennymoor U.D.C. invite tenders for the supplying of road metal for the year. Particulars, etc., may be had on application to Mr. C. R. Spencer, Surveyor, Council Offices, Spennymoor.

MARCH 15.—**Westhoughton.**—MATERIALS.—The U.D.C. invite tenders for the supply of materials and stores for twelve months. A list of quantities and form of tender may be obtained on application to Mr. Thomas Partington, Clerk to the Council, Town Hall, Westhoughton.

MARCH 15.—**Yardley.**—SUPPLIES.—Yardley R.D.C. invite tenders for the supply of materials, etc., for a period of twelve months. Particulars, etc., may be obtained on application to Mr. A. W. Smith, Engineer and Surveyor to the Council, Council House, Sparkhill, near Birmingham.

MARCH 16.—**Gretton.**—GRANITE.—Gretton R.D.C. invite tenders for the supply of about 880 tons of broken XX and XXX granite and screenings. Printed forms of tender and specifications containing full particulars may be obtained on application (enclosing a stamped addressed envelope) to Mr. Fredk. Oakley, Clerk, Council Offices, High-street, Uppingham.

MARCH 16.—**Hunslet.**—MATERIALS.—The Hunslet R.D.C. invite tenders for highway material, including granite, limestone, dross, flags, kerbs, and setts. Estimated quantities and forms of tender may be obtained from Mr. W. B. Pindar, Clerk to the Council, Glasshouse-street, Hunslet, Leeds, on application.

MARCH 16.—**Long Ashton.**—MATERIAL.—Tenders for supplying the Workhouse with plumber's work, timber, oils and colours, and petroleum. Mr. Albert E. Hicks, Clerk, Union Office, Flax Bourton.

MARCH 16.—**Stroud.**—ROAD MATERIALS.—The Stroud U.D.C. invite tenders for the supply of granite, basalt, limestone, and tarred macadam, for the twelve months. Mr. E. Northam Witchell, Clerk to the Council 1, Lansdown, Stroud, Glos.

MARCH 16.—**Thurnscoe.**—SUPPLY OF MATERIALS.—The U.D.C. invite tenders for the supply of materials for the year ending March 31, 1910. Forms of tender may be obtained from Mr. J. Ledger Hawksworth, Clerk, Bolton-upon-Dearne, Rotherham.

MARCH 16.—**Uppingham.**—GRANITE.—The R.D.C. invite tenders for the supply of about 3,500 tons of broken X, XX, and XXX granite and screenings. Printed forms of tender and specifications may be obtained on application (enclosing a stamped addressed envelope) to Mr. Fredk. Oakley, Clerk, Council Offices, High-street, Uppingham.

MARCH 17.—**Ashbourne.**—ARTICLES.—The Governors of Queen Elizabeth's Grammar School, Ashbourne, invite separate tenders for the (1) ironmongery; (2) cupboards and fittings; (3) chairs; (4) desks, required for the new school. Particulars and schedules can be obtained from Mr. E. M. Longsdon, F.S.I., architect, Bakewell, or from the Clerk of Works at the new school, upon deposit of 5s.

MARCH 17.—**Cardiff.**—MATERIALS.—For City of Cardiff Mental Hospital, Whitchurch, near Cardiff. Electric lighting sundries, asbestos packing, etc., oils, painters' materials, timber, glass. Forms of tender and further particulars can be obtained on application to the Clerk and Steward of the Hospital.

MARCH 17.—**Elham.**—MATERIALS.—The R.D.C. invite tenders for the supply and delivery of road materials. Printed forms supplied. Mr. A. Hambrook, Surveyor.

MARCH 17.—**Ely.**—GRANITE, ETC.—Ely R.D.C. invite tenders for 3,100 tons of granite and 1,700 yds. (or tons) of gravel. Forms may be had on application to Mr. F. W. Firby, District Surveyor, Chiefs-lane, Ely.

MARCH 17.—**Felixstowe.**—ANNUAL CONTRACTS FOR MATERIALS.—Felixstowe and Walton U.D.C. invite tenders for the supply and delivery of materials. Specifications, etc., may be obtained on application to Mr. H. Clegg, A.M.Inst.C.E., Surveyor to the Council, Town Hall, Felexstowe.

MARCH 17.—**Hoo.**—MATERIALS.—Hoo R.D.C. invite tenders for highway materials and steam-rolling. Printed forms of tender may be obtained of Mr. Richard Phillott Smyth, Clerk, at Strood.

MARCH 17.—**Leeds.**—LIME.—The Sewerage Committee invite tenders for the supply of lime. Specifications and forms of tender may be obtained at the Sewerage Engineer's Office, Municipal-buildings, Leeds.

MARCH 17.—**Wem.**—STONE, ETC.—Wem R.D.C. invite tenders for the supply of broken and unbroken stone. Tenders are also invited for the hauling of stone and materials. Forms of tender may be had from office of Mr. W. S. Salt, Clerk, Noble-street, Wem.

MARCH 17.—**Winchester.**—MATERIALS.—The T.C. invite tenders for the supply of materials for a period of twelve months. All particulars, specifications, etc., may be obtained on application of the City Engineer, Mr. Walter V. Anderson, A.M.Inst.C.E.

MARCH 18.—**Lanchester.**—LIMESTONE, ETC.—Lanchester R.D.C. invite tenders for the supply of about 11,800 tons of limestone, 3,100 tons of whinstone, and 600 tons of slag. Tenders are also invited for cartage. Forms of tender may be obtained from Mr. Wm. Cumming, Surveyor, Surveyor's Office, Lanchester, Durham.

MARCH 19.—**Eastry.**—MATERIALS.—Eastry R.D.C. invite tenders for the supply of and delivery of surface and approved dug flints and re-carting stones from depôts. Tenders are also invited for steam rolling with 10-ton rollers. Forms of tender, etc., may be obtained of the District Surveyor, Mr. D. E. Foster, Hazel Bank, Eastry, Dover, or the Assistant Surveyor, Mr. W. Goodsell, Durlock-road, Ash, Dover.

MARCH 20.—**Bootle.**—MATERIALS AND STORES.—The Corporation of Bootle invite tenders for the supply of stores and materials, and the execution of repairs for one year. Forms of tender may be obtained at the Borough Electrical Engineer's Office, Electric Light Station, Pine-grove, and samples inspected at the Electric Light Station.

MARCH 20.—**Burnley.**—MATERIALS.—The Highways and Sewage Committee invite tenders for the supply of materials. Specifications, etc., may be obtained on application at the office of Mr. G. H. Pickles, M.Inst.C.E., Borough Engineer, Town Hall, Burnley.

MARCH 20.—**Crompton.**—MATERIALS.—Crompton U.D.C. invite tenders for the supply of materials. Further particulars and forms of tender may be obtained on application to Mr. F. F. Gartside, Clerk and Surveyor, Town Hall, Shaw.

MARCH 20.—**Maidstone.**—STORES.—Kent C.C. Bridges and Roads Committee invite tenders for the supply of tools and materials. Particulars, etc., may be obtained on application to the County Surveyor, West Borough Chambers, Maidstone.

MARCH 20.—**Nelson.**—ANNUAL CONTRACTS.—The Plans and Buildings Committee invite tenders for the supply and delivery of materials for the year. Specifications, etc., may be obtained on application at the office of Mr. B. Ball, A.M.Inst.C.E., Borough Engineer and Surveyor.

MARCH 22.—**Chelmsford.**—GRANITE.—The Guardians of the Chelmsford Union require 250 tons of rough granite. Forms of tender on application to Mr. Arthur S. Duffield, Clerk, 96, High-street, Chelmsford.

MARCH 22.—**Newport.**—LAMPS AND METERS.—The Electricity and Tramways Department invite tenders for the supply of carbon filament electric lamps, electricity meters, etc. Particulars may be obtained on application to Mr. H. Collings Bishop, Borough Electrical Engineer and Tramways Manager, Electricity and Tramways Offices, Town Hall, Newport, Mon.

MARCH 22.—**Rothwell.**—MATERIALS.—Rothwell U.D.C. invite tenders for materials, etc., for a period of twelve months. Specifications, etc., may be obtained on application to Mr. J. Southwart, Surveyor, Council Offices, Rothwell, near Leeds.

MARCH 23.—**Malling.**—MATERIALS.—Malling R.D.C. invite tenders for the supply of stone, etc. Full particulars and forms of tender, etc., may be obtained upon application to Mr. John Marshall, Surveyor, West Malling.

MARCH 23.—**Walsall.**—MATERIALS.—The R.D.C. of Walsall invite tenders for the supply of materials. Form of tender may be obtained at the office of Mr. W. P. Young, District Surveyor, Council Offices, Rushall, Walsall.

MARCH 24.—**Hamilton.**—TOOLS, FENCING MATERIALS, DRAIN PIPES, CEMENT.—The District Committee of the County of Lanark invite tenders for supplying materials. Copies of the specifications, etc., may be obtained from Mr. James Watson, Road Surveyor, Strathaven; Mr. John Clarke, Road Surveyor, Hamilton; Mr. William A. Chapman, Road Surveyor, Airdrie; or from Mr. W. E. Whyte, District Clerk, Hamilton.

MARCH 25.—**Newcastle-upon-Tyne.**—SUPPLY OF MATERIALS, STORES, ETC.—The Town Improvement and Streets Committee invite tenders for the supply of materials durin the twelve months ending March 31, 1910. Forms of tender may be had on application at the City Engineer's office, Town Hall.

MARCH 27.—**Truro.**—ANNUAL CONTRACTS.—The City Council invite tenders for the supply of horse hire and materials for the year. Conditions, etc., can be obtained on application at the office of Mr. Fredk. A. Barnes, A.M.Inst.C.E., City Engineer and Surveyor, Municipal Buildings, Truro.

MARCH 29.—**Plomesgate.**—GRANITE, ETC.—Plomesgate R.D.C. invite tenders for about 2,000 tons of granite broken to 1½-in. gauge. Also for 500 yds. of Kent ragstone broken to 1½ in. Forms of tender may be had on application to Mr. T. Waller Read, Clerk, Board-room, Wickham Market.

NO DATE.—**Malmesbury.**—STONE.—Malmesbury R.D.C. invite tenders for the supply of about 1,800 yds. of block limestone. Forms of tender can be obtained from the Highway Surveyor, Mr. W. H. Lintern, Malmesbury.

NO DATE.—**Wortley.**—GRANITE, ETC.—Tenders are invited for the supply of granite, slag, etc., for the repair of highways. Particulars and forms of tender may be obtained on written application to Mr. F. Crawshaw, Surveyor, 45, Exchange-street, Sheffield.

Public Appointment.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*INSTRUCTOR IN MANUAL TRAINING "ON SUPPLY" ...	London County Council	See advertisement in this issue.....	March 13

Auction Sales.

Nature and Place of Sale.	By whom Offered.	Date of Sale.
*DEALS, BATTENS, ETC.—Great Hall, Winchester House, Old Broad-street, E.C.	Churchill & Sims	March 10
*FREEHOLD HOUSE AND PREMISES, MILE END NEW TOWN—At the Mart	C. C. & T. Moore	March 11
*MATERIALS AND FITTINGS OF VINE WHARF, MILLBANK-ST., S.W.—On the Premises	Horne & Co.	March 12
*BUILDER'S PLANT AND MATERIALS, ETC., WORCESTER—On the Premises	Henry Coombs	March 16
*FREEHOLD BUILDING LAND, FINCHLEY—At the Torrington Hotel, North Finchley.....	Charles Sparrow & Son	March 29

RECENT SALES.—*Continued from page* 291.

By NICHOLSON, GREAVES, BARBER, & HASTINGS (at Sheffield).

Sheffield.—Cowlishaw-rd., Thorn View, u.t. 784 yrs., g.r. 2*l.*, p.	£420
41 and 43, Upper Thorpe-rd., u.t. 744 yrs., g.r. 2*l.* 16s. 9d., gross rentals 30*l.* 11s.	305
Totley Brook Estate, a freehold plot	100

By WINTERTON & SONS (at Chasetown).

Chasetown (Staffs). — High-st., Staffordshire Knot, p.h., f.	3,000
Four freehold cottages adjoining	280
Princess-st., a freehold cottage	200

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. public-house; o. for offices; s. for shops; ct. for court.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£ s. d.	
Best Stocks	1 6 6	per 1000 alongside, in river.
Picked Stocks for Facings	2 10 0	,, delivered
Flettons	1 4 6	,, at railway depôt.
Best Fareham Red	3 12 0	,, ,, ,,
Best Red Pressed Ruabon Facing	5 0 0	,, ,, ,,
Best Blue Pressed Staffordshire	3 15 0	,, ,, ,,
Do. Bullnose	4 0 0	,, ,, ,,
Best Stourbridge Fire Bricks	3 14 0	,, ,, ,,
GLAZED BRICKS.		
Best White and Ivory Glazed Stretchers	10 7 6	,, ,, ,,
Headers	9 17 6	,, ,, ,,
Quoins, Bullnose, and Flats	13 17 6	,, ,, ,,
Double Stretchers	15 17 6	,, ,, ,,
Double Headers	12 17 6	,, ,, ,,
One Side and two Ends	16 17 6	,, ,, ,,
Two Sides and one End	17 17 6	,, ,, ,,
Splays, Chamferred, Squints	15 10 0	,, ,, ,,
Best Dipped Salt Glazed Stretchers	10 7 6	,, ,, ,,
Headers	9 17 6	,, ,, ,,
Quoins, Bullnose, and Flats	13 17 6	,, ,, ,,
Double Stretchers	15 17 6	,, ,, ,,
Double Headers	12 17 6	,, ,, ,,
One Side and two Ends	16 17 6	,, ,, ,,
Two Sides and one End	17 17 6	,, ,, ,,
Splays, Chamferred, Squints	15 10 0	,, ,, ,,
Second Quality White and Dipped Salt Glazed	1 5 0	,, less than best.

	s. d.	
Thames and Pit Sand	6 6	per yard, delivered.
Thames Ballast	5 0	,, ,,
Best Portland Cement	28 0	per ton, ,,
Best Ground Blue Lias Lime	19 0	,, ,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime	11s. 6d. per yard, delivered.
Stourbridge Fireclay in sacks	27s. 0d. per ton at rly. dpt.

STONE.

	s. d.	
BATH STONE—delivered on road waggons, Paddington Depôt	1 6½	per ft. cube.
Do. do. delivered on road waggons, Nine Elms Depôt	1 8½	,, ,,
PORTLAND STONE (20 ft average)—Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 1	,, ,,
White Basebed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 2½	,, ,,

	s. d.	
Ancester in blocks	1 10	per ft. cube deld. rly. depôt.
Beer ,,	1 6	,, ,,
Greenshill ,,	1 10	,, ,,
Darley Dale in blocks	2 4	,, ,,
Red Corsehill ,,	2 2	,, ,,
Closeburn Ree Freestone	2 0	,, ,,
Red Mansfield ,,	2 4	,, ,,
YORK STONE—*Robin Hood Quality.*	s d.	
Scappled random blocks	2 10	per ft. cube, deld. rly. dep.
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3	per ft. super ,,
6 in. rubbed two sides ditto, ditto	2 6	,, ,,
3 in. sawn two sides slabs (random sizes)	0 11½	,, ,,
2 in to 2½ in. sawn one side slabs (random sizes)	0 7½	,, ,,
1½ in. to 2 in. ditto, ditto	0 6	,, ,,
HARD YORK—		
Scappled random blocks	3 0	per ft. cube. ,,
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 8	per ft. super. ,,
6 in. rubbed two sides ditto	3 0	,, ,,

STONE (*continued*).

	£ s. d.	
YORK STONE—(*Robin Hood Quality*) *continued*—		
3 in. sawn two sides slabs (random sizes)	1	2 per ft. super, deld. rly. dep.
2 in. self-faced random flags	0 5	,, ,,

SLATES.

In. In.	£ s. d.	
20×10 best blue Bangor	13 2 6	per 1000 of 1200 at r.d.
20×12 ,, ,,	13 17 6	,, ,,
20×10 first quality ,,	13 0 0	,, ,,
20×12 ,, ,,	13 15 0	,, ,,
16×8 ,, ,,	7 5 0	,, ,,
22×10 best blue Portmadoc	12 12 6	,, ,,
16×8 ,, ,,	6 12 6	,, ,,
20×10 best Eureka unfading green	15 17 6	,, ,,
20×12 ,, ,,	18 7 6	,, ,,
18×10 ,, ,,	13 5 0	,, ,,
16×8 ,, ,,	10 5 0	,, ,,
20×10 permanent green	11 12 6	,, ,,
18×10 ,, ,,	9 12 6	,, ,,
66×8 ,, ,,	6 12 6	,, ,,

TILES.

Best plain red roofing tiles	42	0 per 1000, at rly depôt.
Hip and Valley tiles	3	7 per doz. ,,
Best Broseley tiles	50	0 per 1000 ,,
Do. Ornamental tiles	52	6 ,, ,,
Hip and Valley tiles	4	0 per doz. ,,
Best Ruabon red, brown, or brindled do. (Edwards)	57	6 per 1000 ,,
Do. Ornamental do.	60	0 ,, ,,
Hip tiles	4	0 per doz. ,,
Valley tiles	3	0 ,, ,,
Best Red or Mottled Staffordshire do. (Peakes)	51	9 per 1000 ,,
Do. Ornamental do.	54	6 ,, ,,
Hip tiles	4	1 per doz. ,,
Valley tiles	3	8 ,, ,,
Best "Rosemary" brand plain tiles	48	0 per 1000 ,,
Best Ornamental tiles	50	0 ,, ,,
Hip tiles	4	0 per doz. ,,
Valley tiles	3	8 ,, ,,
Best "Hartshill" brand plain tiles, sand-faced	50	0 per 1000 ,,
Do. pressed	47	6 ,, ,,
Do. Ornamental do.	50	0 ,, ,,
Hip tiles	4	0 per doz. ,,
Valley tiles	3	6 ,, ,,
Staffordshire (Hanley) Reds or Brindled tiles	42	6 per 1000 ,,
Hand-made sand-faced	45	0 ,, ,,
Hip tiles	4	0 per doz. ,,
Valley tiles	3	6 ,, ,,

WOOD.

BUILDING WOOD.	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	13 10 0	... 15 0 0
Deals: best 3 by 9	13 0 0	... 14 0 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11 0 0	... 12 0 0
Battens: best 2½ by 6 and 3 by 6	0 10 0	less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best.
Battens: seconds	0 10 0	
2 in. by 4 in. and 2 in. by 6in.	9 0 0	... 10 0 0
2 in. by 4½ in. and 2 in. by 5 in.	8 10 0	... 9 10 0
Foreign Sawn Boards—		
1 in. and 1¼ in by 7 in.	0 10 0	more than battens.
¾ in.	1 0 0	,,
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 4 10 0	... 5 0 0
Seconds	4 0 0	... 4 10 0
Small timber (8 in. to 10 in.)	3 12 6	... 3 15 0
Small timber (6 in. to 8 in.)	3 0 0	... 3 10 0
Swedish balks	2 10 0	... 3 0 0
Pitch-pine timber (30 ft. average)	4 0 0	... 4 15 0

JOINERS' WOOD.	At per standard. £ s. d.	£ s. d.
White Sea: first yellow deals, 3 in. by 11 in.	24 0 0	... 25 0 0
3 in. by 9 in.	22 0 0	... 23 0 0
Batten 2½ in. and 3 in. by 7 in.	16 10 0	... 18 0 0
White Sea: second yellow deals, 3 in. by 1 in.	18 10 0	... 20 0 0
3 in. by 9 in.	17 10 0	... 19 0 0
Battens, 2½ in. and 3 in. by 7 in.	13 10 0	... 14 10 0
Third yellow deals, 3 in. by 11 in. and 9 in.	13 10 0	... 15 0 0
Battens, 2½ in. and 3 in. by 7 in.	11 0 0	... 12 0 0
Petersburg first yellow deals, 3 in. by 11 in.	21 0 0	... 22 10 0
Do. 3 in. by 9 in.	18 0 0	... 19 10 0
Battens	13 10 0	... 15 0 0
Petersburg second yellow deals, 3 in. by 11 in.	16 0 0	... 17 0 0
Do. 3 in. by 9 in.	14 10 0	... 16 0 0
Battens	11 0 0	... 12 10 0
Third yellow deals, 3 in. by 11 in.	13 0 0	... 14 0 0
Do. 3 in. by 9 in.	12 10 0	... 14 0 0
Battens	10 0 0	... 11 0 0
White Sea and Petersburg—		
First white deals, 3 in. by 11 in.	14 10 0	... 15 10 0
,, ,, 3 in. by 9 in.	13 10 0	... 14 0 0
Battens	11 0 0	... 12 0 0
Second white deals, 3 in. by 11 in.	13 10 0	... 14 10 0
,, ,, 3 in. by 9 in.	12 10 0	... 13 10 0
Battens	10 0 0	... 11 0 0
Pitch-pine: deals	18 0 0	... 21 0 0
Under 2 in. thick extra	0 10 0	... 1 0 0
Yellow pine—First, regular sizes	44 0 0	upwards.
Oddments	32 0 0	,,
Seconds, regular sizes	33 0 0	,,
Oddments	28 0 0	,,
Kauri Pine—Planks, per ft. cube	0 3 6	... 0 5 0
Danzig and Stettin Oak logs—		
Large, per ft. cube	0 3 0	... 0 3 9
Small ,, ,,	0 2 6	... 0 2 6
Wainscot Oak Logs, per ft. cube	0 5 6	... 0 6 0
Dry Wainscot Oak, per ft. sup. as inch	0 0 8½	... 0 0 9½
¼ in. do. do	0 0 7	... —
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch	0 0 9	... 0 1 0
Selected, Figury, per ft. super. as inch	0 1 6	... 0 2 6
Dry Walnut, American, per ft. super. as inch	0 0 10	... 0 1 0

WOOD (*continued*).

JOINERS' WOOD (*continued*)—	At per standard. £ s. d.	£ s. d.
Teak per load	17 0 0	... 22 0 0
American Whitewood Planks, per ft. cube	0 4 0	... 0 5 0
Prepared Flooring, etc.—	Per square.	
1 in. by 7 in. yellow, planed and shot	0 13 6	... 0 17 0
1 in. by 7 in. yellow, planed and matched	0 4 0	... 0 18 0
1¼ in. by 7 in. yellow, planed and matched	0 16 0	... 1 0 0
1 in. by 7 in. white, planed and shot	0 12 0	... 0 14 6
1 in. by 7 in. white, planed and matched	0 12 6	... 0 15 0
1¼ in. by 7 in. white, planed and matched	0 15 0	... 0 16 6
¾ in. by 7 in. yellow matched and beaded or V-jointed brds.	0 11 0	... 0 13 6
1 in. by 7 in. ,, ,,	0 14 0	... 0 18 0
¾ in. by 7 in. white ,, ,,	0 10 0	... 0 11 6
1 in. by 7 in. ,, ,,	0 12 9	... 0 15 0
6 in. at 6d. to 9d. per square less than 7in.		

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	7 0 0	... 7 10 0
Compound Girders, ordinary sections	9 0 0	... 10 0 0
Steel Compound Stanchions	11 0 0	... 2 0 0
Angles, Tees, and Channels, ordinary sections	9 0 0	... 10 0 0
Flitch Plates	9 0 0	... 9 10 0
Cast Iron Columns and Stanchions including ordinary patterns	7 10 0	... 8 10 0

METALS.

IRON—	Per ton, in London. £ s. d.	£ s. d.
Common Bars	8 10 0	... 9 0 0
Staffordshire Crown Bars, good merchant quality	8 15 0	... 9 5 0
Staffordshire "Marked Bars"	10 10 0	... —
Mild Steel Bars	8 15 0	... 9 5 0
Hoop Iron, basis price	9 5 0	... 9 10 0
,, ,, Galvanised	17 0 0	... —
(*And upwards, according to size and gauge.)		
Sheet Iron Black—		
Ordinary sizes to 20 g.	9 15 0	... —
,, ,, 24 g.	10 15 0	... —
,, ,, 26 g.	12 5 0	... —
Sheet Iron, Galvanized, flat, ordinary quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0	... —
Ordinary sizes to 22 g. and 24 g.	15 10 0	... —
,, ,, 26 g.	16 10 0	... —
Sheet Iron, Galvanized, flat, best quality—		
Ordinary sizes to 20 g.	18 0 0	... —
,, ,, 22 g. and 24 g.	18 10 0	... —
,, ,, 26 g.	20 0 0	... —
Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 8 ft. 20 g.	14 10 0	... —
,, ,, 22 g. and 24 g.	14 15 0	... —
,, ,, 26 g.	16 5 0	... —
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12 0 0	... —
Best Soft Steel Sheets, 22 g. & 24 g.	13 0 0	... —
,, ,, ,, 26 g.	15 0 0	... —
Cut Nails, 3 in. to 6 in.	10 10 0	... 11 0 0
(Under 3 in., usual trade extras.)		

LEAD, &c.	Per ton, in London. £ s. d.	£ s. d.
LEAD—Sheet, English, 3lb. and up.	16 17 6	... —
Pipe in coils	17 7 6	... —
Soil pipe	19 7 6	... —
Compo pipe	20 7 6	... —
ZINC—Sheet—		
Vielle Montagne	26 10 0	... —
Silesian	26 5 0	... —
COPPER—		
Strong sheet per lb.	0 1 0	... —
Thin ,,	0 1 1	... —
Copper nails	0 0 10	... —
Copper wire	0 0 10	... —
BRASS—		
Strong Sheet	0 0 11	... —
Thin	0 1 0	... —
TIN—English Ingots	0 1 5	... —
SOLDER—Plumbers	0 0 7	... —
Tinmans	0 0 9½	... —
Blowpipe	0 1 0	... —

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

15 oz. thirds	2½d. per ft. delivered.
,, fourths	1½d. ,, ,,
21 oz. thirds	3d. ,, ,,
,, fourths	2½d. ,, ,,
26 oz. thirds	4d. ,, ,,
,, fourths	3d. ,, ,,
32 oz. thirds	4½d ,, ,,
,, fourths	4½d. ,, ,,
Fluted Sheet, 15 oz.	3½d. ,, ,,
,, 21 oz.	4½d. ,, ,,

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

⅛ Hartley's	2½d. per ft. delivered.
⅜ ,,	2⅝d. ,, ,,
½ ,,	2⅞d. ,, ,,
Figured, Oxford Rolled and "Oceanic" Glass, white	3½d. ,, ,,
,, ,, tinted	5d. ,, ,,
OTHER GLASS—	
"Arctic" Glass, white	3½d. ,, ,,
,, ,, tinted	5d. ,, ,,
,, ,, Ruby and opalescents	1s. ,, ,,

OILS, &c.		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 1 11
,, ,, ,, in barrels	,,	0 2 0
,, ,, ,, in drums	,,	0 2 3
Boiled ,, ,, in barrels	,,	0 2 3
,, ,, ,, in drums	,,	0 2 6
Turpentine in Barrels	,,	0 2 5
,, in drums	,,	0 2 7
Genuine Ground English White Lead	per ton	20 10 0
Red Lead, Dry	,,	20 0 0
Best Linseed Oil Putty	per cwt.	0 7 0
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.	Per gallon.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 16 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursday*. [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100*l.*, unless in some exceptional cases and for special reasons.]

• Denotes *accepted*. † Denotes *provisionally accepted*.

ABERSOCH.—For sewerage works, for Lleyn Rural District Council. Mr. Harry Roberts, Sanitary Surveyor, Ynys, Churlol, R.S.O.:—

J. Riley	£543	W. & R. Jones	£335
J. T. Jones	396	J. H. Roberts, Pwllheli*	292
J. Summers	385		
J. Hunter	376		

BARKING TOWN.—For paving works, Ripple-road, for the Urban District Council. Mr. C. F. Dawson, Surveyor, Public Offices, Barking:—
D. T. Jackson, 106, Ripple-road, Barking £411 1 11

BLYTH.—For additions to Crofton Schools, for Blyth Education Committee. Mr. R. Grieves, Surveyor, Blyth, Northumberland:—

Swann Bros.	£967 18 6	Robson&Waddle	£798 10 0
R. Baxter	860 0 0	J.&W.Simpson, Blyth*	759 16 0
Cook Bros.	801 11 2		

BOSTON.—For 185 yds. of ornamental wrought-iron fencing at the cemetery, for the Burial Board. Mr. G. E. Clarke, Borough Surveyor:—
J. Lucas, West-street, Boston* £140 5 3

BOURNE (Lincs.).—For erecting five cottages in West-street. Mr. J. H. Roberts, architect, North-road, Bourne, Lincs. Quantities by architect:—

Rawlingson Bros.	£800	J. Roberts, North-street, Bourne	£640
S. C. Smith	800		
Watson & Co.	662		

COLCHESTER.—For the new asylum, for the various works for the erection and completion of the superstructure of the main building at Mile End, about one and a half miles north of Colchester main line railway-station, for the Visiting Committee of Essex County Lunatic Asylum. Mr. F. Whitmore, County Architect, and Mr. W. H. Town, A.R.I.B.A. (Colchester), architects. Quantities by Messrs. R. L. Curtis & Sons, London, E.C.:—

McCormick & Sons	£212,632	J. Byrom Ltd.	£191,687
F. Bennett	203,600	Waring & White, Ltd.	191,139
Perry & Co.	201,079	Leslie & Co.	190,403
Pattinson & Sons, Ltd.	199,832	A. J. Bateman	189,889
T. Rowbotham	196,392	W. King & Son, Westminster, S.W.*	189,691
Allen & Sons	195,590		
H. Lovatt	195,186		
Arnold & Son	192,500		

EGG BUCKLAND.—For Riverford waterworks, for Plympton St. Mary Rural District Council. Mr. F. A. Clark, Engineer, 83, Old Town-street, Plymouth. Quantities by Engineer:—

C. Shaddock	£85 9 11	G. B. Andrews	£65 0 7
T. Shaddock	77 18 9	C. Nicholls	59 14 0
G. Doney	75 2 6	J. H. Hoskin, Plympton*	59 4 1
W. G. Hoskin	74 8 1½		
F. T. Pitwood	73 17 0		

[Engineer's estimate, £60.]

FOSDYKE AND ALGARKIRK.—For three sets of cottages and farm buildings, for Holland County Council Small Holdings Committee. Mr. J. Rowell, architect, Church-lane, Boston:—
For the Three Cottages.
Watson & Co., Spalding £777 0 0
For the Three Farm Buildings.
Watson & Co., Spalding £599 5 0
[Lowest of eleven firms who tendered for the works.]

GREENWICH.—For paving roadway and footways of Eversley-road, for the Borough Council:—

W. Peters	£598	J. Mowlem & Co., Ltd., Grosvenor Wharf, Westminster*	£499
Fry Bros.	532		
A. L. Etheridge	530		
H. Woodham & Sons	527		

HESWALL (Cheshire).—For sewer works, for Wirral Rural District Council. Mr. W. Webb Shennan, Surveyor, Upton-road, Moreton:—
J. Hughes, Telegraph-road, Heswall, Chester £41 5 0

HOLYHEAD.—For the construction of an engine-house, filter-bed, etc., Llyn Traffwll, for the Waterworks Company. Messrs. H. Rofe & Son, engineers, 8, Victoria-street, Westminster:—
E. R. Lester, Plymouth* £2,274 8 2

HUDDERSFIELD.—For erecting the Palace Theatre, Kirkgate. Messrs. R. Horsfall & Son, architects, 22A, Commercial-street, Halifax:—

Law, Stead, & Sons	£13,173	J. Radcliffe & Sons	£11,771
T. Pickles	12,950	T. Bottomley & Son	11,693
J. Parkinson & Sons	12,763	Smith Bros., Burnley*	11,600
W. Wade & Co.	12,400		
Graham & Jessop	11,940		

ILFORD.—For erecting a caretaker's house at South Park School, Water-lane, for the Education Committee. Mr. C. J. Dawson, F.R.I.B.A., 11, Cranbrook-road, Ilford:—
W. E. W. Jacobs, 54, Stembridge-road, Anerley, S.E.* £460

ILFORD.—For road-making, Uphall, for the Urban District Council. Mr. H. Shaw, M.Inst.C.E., Town Hall, Ilford:—
J. Jackson, 104, Clova-road, Forest Gate† £289 6 6

ILFORD.—For private street works (part of Coventry-road), for the Urban District Council. Mr. H. Shaw, M.Inst.C.E., Town Hall, Ilford:—
Parsons & Parsons, Ilford† £152 18 7

KINGSWOOD.—For alterations and additions, Samuel White's Council School, for the Gloucestershire Education Committee. Mr. R. S. Phillips, Architect to the Education Committee, Midland Bank-chambers, Gloucester:—

Walters & Son	£1,187	C. A. Hayes & Sons	£1,017
Cowlin & Son	1,138	Adams & Jefferies	998
Ridd & Sons	1,073	E. Clark & Sons, Bristol*	985
J. Long & Sons, Ltd.	1,042		

LETCHWORTH (Herts.).—For detached cottage, for Mr. G. T. Harvey. Messrs. Underwood & Kent, P.A.S.I., architects:—

H. E. Hurst	£467	A. E. Jeffs	£380
Beckley & Turpie	455	A. Collins*	350

LONDON.—Annual tenders for the Public Health Committee of the Lambeth Borough Council:—
Messrs. E. & T. Wright, for sewer castings at discount of 2½ per cent. on Council schedule rates.
Messrs. Doulton & Co., and Stiff & Son, for drain pipes, Contractors to supply during alternate months, at 12½ per cent. from schedule rates.
Eastwood & Co., for stock bricks, at £1 10s. per 1,000 delivered to six inner wards, at £1 13s. 6d. per 1,000 delivered to three outer wards.

LONDON.—Annual contracts for the Highways Committee of the Lambeth Borough Council:—
J. & B. Martin, for clean broken Kentish flints, at from 5s. 3d. to 6s. 2d. per cubic yard, according to the wards in which it is required to be delivered.
W. Hedgecock, for Thames ballast, at from 4s. 5d. to 7s. 11d. per cubic yard.
W. Hedgecock, for Thames ballast, screened, at from 5s. 9d. to 8s. 4d. per cubic yard.
Thames Sand Dredging Co., for Thames ballast, crushed ¼ in., at 6s. to 7s. 8d. per cubic yard.
Thames Sand Dredging Co., for Thames ballast, crushed ¾ in., at 6s. 4d. to 8s. per cubic yard.
Thames Sand Dredging Co., for Thames ballast, crushed ¼ in., at 8s. 4d. to 10s. per cubic yard.
J. Shelbourne & Co., for Thames sand, at 5s. 6d. to 8s. 6d. per cubic yard.
W. Hedgecock, for Thames sand, washed, at 6s. 6d. to 8s. per cubic yard.
J. & B. Martin, for sharp pit sand, at 4s. 3d. to 4s. 9d. per cubic yard.
W. Hedgecock, for sharp pit sand, washed, at 6s. to 7s. 6d. per cubic yard.
J. & B. Martin, for rough pit gravel, at 5s. 2d. to 6s. 1d. per cubic yard.
J. & B. Martin, for fine pit gravel, at 4s. 5d. to 5s. per cubic yard.
J. & B. Martin, for shingle, at 5s. 6d. per cubic yard.

LONDON.—Annual tenders for Lambeth Borough Council:—
J. Knox & Co., for general ironmongery, at Council's schedule rates of all items but mud scoops, shovels, and hurricane lamps. For shovels and scoops a premium of 5 per cent. on the schedule rates as quoted, for the lamps 12½ discount.
J. Knox & Co., for tools, iron, steel, etc., at 15 per cent. from schedule rates of bar, sheet, angle, and hoop-iron; at a discount of 20 per cent off mild steel; and at Council's schedule rates for the other items.
Grindley & Co., for oils and colours, at a premium of 5 per cent. on schedule rates.
H. J. McQuillin, for smith's work, at 12½ per cent. off schedule rates.

LONDON.—Annual tender for granite and tar-paving, for the Lambeth Borough Council:—
J. Mowlem & Co., for broken Guernsey granite, at from 12s. 9d. to 15s. 3d. per cubic yard according to place of delivery; for Guernsey granite siftings to go through a ¾ in. sieve, at from 9s. to 11s. 6d.
Chittenden & Simmons, for tar-paving topping, at from 18s. 7d. to 19s. 5d., per cubic yard according to ward; for tar-paving, bottoming, at from 16s. 7d. to 17s. 5d.
Eastwood & Co., for Portland cement.
Wakeley Bros., & Co., Ltd., for grey lime and lias lime.

LONDON.—Granite, pipes, etc., for one year's supply to the Kensington Borough Council:—
A. & F. Manuelle, for broken blue Guernsey granite, at 9s. 5d. per ton.
London Granite Company, for broken Quenest granite, at 9s. 9d. per ton.
A. & F. Manuelle, for granite siftings, at 7s. 3d. per ton.
W. Boyer & Sons, for Cowley gravel, at 2s. 8d. per ton.
J. H. Turner & Lisney, for stoneware drain-pipes, at the following percentages below Council's schedule of prices—4 in. and 6 in., 67½ per cent.; 9 in., 65 per cent.; and 12 in., 62½ per cent.
West Bros., for lime, cement, and bricks, at schedule of prices.

LONDON.—Annual contracts for iron goods, etc., for Kensington Borough Council:—
J. Gibb & Co., Ltd., for iron goods, at £169 12s. 1d.
J. Gibb & Co., Ltd., for heavy iron goods, at £149 9s.
S. Pontifex & Co., for lamp columns and gulley, at schedule of prices.
S. Pontifex & Co., for street grates, lanterns, glass, etc., at £218 1s. 8d.

LONDON.—For erection and formation of the sub structure for the blocks of model dwellings on the City, road site, for the Trustees of the Sutton Estate. Mr E. C. P. Monson, F.R.I.B.A., F.S.I., M.S.A., architect Finsbury-pavement-house, E.C. Quantities by Messrs Stanger & Son, 21, Finsbury-pavement, E.C.:—

Wallis & Sons	£6,933	Patman & Fotheringham	£6,171
Willcock & Co.	6,787	Lawrence & Sons	6,131
Kirk & Randall	6,772	A. Monk	6,088
J. Dorey & Co.	6,684	Holliday & Greenwood	5,959
Godson & Sons	6,488	Sheffield Bros.	5,950
Higgs & Hill	6,484	Dove Bros.	5,925
Trollope & Colls	6,483	Kilby&Gayford,Ltd.	5,636
Parnell & Sons	6,477	Cubitt & Co., Gray's Inn-road, W.C.‡	5,555
Holloway Bros.	6,440		
F. G. Minter	6,286		
B. E. Nightingale	6,247		

‡ Accepted subject to the approval of the Court of Chancery.

LOSTWITHIEL.—For erecting three or five houses, for the Lostwithiel Building Company, Ltd.:—

Elliott & Son	£2,147 0 0
J. H. Emdean & Co.	1,880 0 0
W. E. Bennett	1,829 0 0
Trehane & Son	1,769 0 0
S. Sholbrook	1,711 10 0
Bassett Bros.	1,641 0 0
E. A. Conybeare	1,483 12 10
W. T. Stevenson‡	960 0 0

‡ For three houses only.
[Architect's estimate, £1,665.]

OSWESTRY.—For constructing and erecting steel roof principals and columns and corrugated iron roofs at the Smithfield, for the Town Council. Mr. G. W. Lacey, C.E., Borough Engineer and Surveyor, Guildhall, Oswestry. Quantities by Borough Engineer:—

J. Booth & Sons	£618 3 7	Redpath, Brown, & Co.	£503 7 0
T. J. Hawkins & Co.	614 2 2	E. Thomas & Co.	497 17 6
C. & W. Walker, Ltd.	571 10 0	J. Lysaght, Ltd.	495 11 3
Heeman & Froude	571 5 0	Hayward Bros.	495 0 0
Hall & Pickles	563 15 5	Hill & Smith	493 10 9
S. Sothern	560 13 3	F. W. Cross & Co.	486 0 0
E. Wardle & Co.	556 0 0	W. Corbett & Co.	485 0 0
Norton Bros. & Co.	550 0 0	Goddard, Massey, & Warner, Ltd.	481 0 4
D. Rowell & Co.	543 0 0	E. F. Blakeley & Co.	474 10 0
J. Tildesley, Ltd.	540 12 0	E. Wood & Co., Ltd.	460 0 0
G. P. Banbury	528 12 0	Whitmall & Gregory, Ltd.	455 0 0
Bruce & Still, Ltd.	526 0 0	W. Bain & Co., Ltd.	450 17 10
F. Morton & Co., Ltd.	523 0 0	R. J. Roberts, Oswestry*	445 4 0
Nortons (Tividale), Ltd.	515 9 0	E. Hadley & Sons	435 0 0
Darlington Construction Co., Ltd.	506 0 0		

[Borough Surveyor's estimate, £498.]

ST. BUDEAUX.—For private street improvement works at Crownhill and Honicknowle, for Plympton St. Mary Rural District Council. Mr. F. A. Clark, Engineer, 83, Old Town-street, Plymouth. Quantities by Engineer:—

Stoke-terrace.

J. Shaddock	£699 16 0	Steer & Pearce	£570 17 1
Stevenson	654 3 4	W. Shaddock	567 0 3
Pethick Bros.	622 16 0	T. Doney	549 0 5
Jefford & Sons	620 13 10	Hoskin	530 4 0
T. Shaddock	578 14 10	H. J. Allen*	499 13 4

[All of Plymouth. Surveyor's estimate, £661 16s.]

Lane at the rear of Tavistock-road.

Stevenson	£172 15 0	Steer & Pearce	£153 11 4
J. Shaddock	166 5 0	H. J. Allen	152 11 6
Pethick Bros.	156 17 6	Jefford & Sons	148 0 6
Hoskin	156 8 0	T. Shaddock	145 3 0
W. Shaddock	154 17 5	T. Doney*	138 2 3

[All of Plymouth. Surveyor's estimate, £197 15s. 3d.]

Lane at rear of Beaumont-road.

J. Shaddock	£149 15 3	Steer & Pearce	£111 19 4
W. Shaddock	124 2 0	T. Doney	107 17 6
T. Shaddock	120 15 3	Hoskin	101 2 3
Pethick Bros.	114 14 8	Stevenson*	98 3 8
Jefford & Sons	114 8 1		

[All of Plymouth. Surveyor's estimate, £120 8.]

Meavy-terrace.

J. Shaddock	£346 5 0	W. Shaddock	£290 7 7
Stevenson	314 0 8	T. Shaddock	289 1 1
Pethick Bros.	307 18 10	T. Doney	285 11 6
Jefford & Sons	299 4 6	Hoskin*	249 2 5
Steer & Pearce	293 7 0		

[All of Plymouth. Surveyor's estimate, £367 16s. 6d.]

Haroldsleigh-terrace.

J. Shaddock	£225 14 3	T. Doney	£182 11 0
Stevenson	219 14 1	T. Shaddock	181 12 0
Pethick Bros.	207 3 0	W. Shaddock	179 4 11
Jefford & Sons	190 1 10	Hoskin*	164 0 0
Steer & Pearce	189 5 4		

[All of Plymouth. Surveyor's estimate, £205 11s. 6d.]

Lane at the rear of Whitleigh-terrace.

J. Shaddock	£184 13 3	T. Shaddock	£143 7 4
W. Shaddock	171 18 6	Jefford & Sons	142 13 0
T. Doney	152 3 6	Stevenson	132 14 8
Steer & Pearce	151 15 5	Hoskin*	124 0 6
Pethick Bros.	150 17 9		

[All of Plymouth. Surveyor's estimate, £139 7s. 2d.]

Glenside and Kelvin-grove.

J. Shaddock	£201 16 3	Steer & Pearce	£162 9 0
Jefford & Sons	175 9 0	W. Shaddock	160 15 11
Stevenson	172 18 3	T. Shaddock	160 0 0
Pethick Bros.	165 13 0	Hoskin*	124 0 6
T. Doney	163 2 6		

[All of Plymouth. Surveyor's estimate, £159 1s. 4½d.]

Whitleigh Cottage-road.

J. Shaddock	£138 15 6	Steer & Pearce	£103 17 2
Jefford & Sons	112 11 6	T. Shaddock	102 18 7
Stevenson	109 3 10	T. Doney	100 9 0
W. Shaddock	104 2 0	Hoskin*	94 13 8
Pethick Bros.	103 18 3		

[All of Plymouth. Surveyor's estimate, £117 15s. 4d.]

Whilleigh Cottage-lane.

J. Shaddock	£48 10 6	Hoskin	£38 3 6
W. Shaddock....	41 11 2	Jefford & Sons ..	36 17 6
Steer & Pearce ..	40 7 4	T. Shaddock	36 8 0
Stevenson	40 4 0	T. Doney*	34 4 6
Pethick Bros.....	39 18 6		

[All of Plymouth. Surveyor's estimate, £43 18s.]

South View-road.

J. Shaddock ..	£166 3 4	Steer & Pearce	£115 2 4
Stevenson	131 13 0	T. Doney	114 2 0
Pethick Bros..	119 10 11	T. Shaddock ..	113 10 11
Jefford & Sons	119 7 6	Hoskin*	103 2 7
W. Shaddock..	118 17 3		

[All of Plymouth. Surveyor's estimate, £132 5s. 9d.]

South View-lane.

J. Shaddock ..	£31 17 6	Jefford & Sons..	£25 4 0
W. Shaddock ..	28 3 6	Hoskin	25 2 3
Steer & Pearce..	27 19 7	T. Shaddock ..	24 9 0
Stevenson.....	26 10 6	T. Doney*	23 6 6
Pethick Bros. ..	26 9 9		

[All of Plymouth. Surveyor's estimate, £26 17s.]

Butt Park Terrace-lane.

J. Shaddock ..	£307 0 0	Steer & Pearce	£220 0 7
T. Doney	256 6 6	Jefford & Sons	210 12 6
T. Shaddock ..	251 10 4	Stevenson	204 10 6
Pethick Bros..	226 0 3	Hoskin*	185 8 6
W. Shaddock..	220 7 0		

[All of Plymouth. Surveyor's estimate, £276 19s. 10d.]

Horsham Cottages Front-road.

J. Shaddock ..	£112 3 3	Steer & Pearce..	£81 9 6
Stevenson	90 3 5	W. Shaddock ..	78 14 11
T. Shaddock ..	85 2 3	Jefford & Sons..	76 9 10
T. Doney.....	85 0 0	Hoskin*	71 2 0
Pethick Bros...	82 4 8		

[All of Plymouth. Surveyor's estimate, £87 4s.]

Horsham Cottages Side-road.

J. Shaddock ..	£274 15 0	Steer & Pearce	£201 16 0
Stevenson	218 19 11	W. Shaddock..	198 9 4
T. Shaddock ..	218 7 8	Jefford & Sons	195 13 4
T. Doney	210 8 0	Hoskin*.....	176 0 10
Pethick Bros...	206 13 2		

[All of Plymouth. Surveyor's estimate, £227 19s. 10d.]

Horsham Cottages-lane.

J. Shaddock....	£151 9 0	Hoskin.....	£114 12 0
Stevenson.....	122 6 6	T. Doney	110 1 3
W. Shaddock ..	121 1 0	Jefford & Sons..	108 0 0
Steer & Pearce	115 2 8	Pethick Bros*..	105 17 6
T. Shaddock ..	114 14 6		

[All of Plymouth. Surveyor's estimate, £155 12s. 9d.]

SENGHENYDD.—For street works (Stanley-street and Cross-street), for Caerphilly Urban District Council. Mr. A. O. Harpur, Surveyor, Cardiff-road, Caerphilly:—

R. Webb & Son.....	£1,024 13 4	J. Williams ..	£948 2 9
Davies & Lloyd	993 15 11	W. J. Morgan, Penyrheol, Caerphilly*..	923 17 9
G. Rutter	964 1 6		

SOUTHAMPTON.—For conversion of shop spaces at Council buildings into tenements, for the Corporation. Mr. J. A. Crowther, Borough Engineer:—

Dyer & Sons.....	£195	F. Osman	£168
Jenkins & Sons, Ltd..	186	G. R. Long, Southampton*	159
H. Stevens & Co.....	184		

STAINES.—Excavating for and constructing in concrete the carcassing of the new filter beds, for the Urban District Council. Mr. E. J. Barrett, A.M.Inst.C.E., Town Hall, Staines:—

Kavanagh & Co.....	£1,797 15 0	E. H. Bate & Co.....	£1,237 3 3
W. G. Stone ..	1,732 10 0	T. W. Pedrette	1,223 0 0
A. Jordan....	1,585 0 0	T. Watson....	1,211 3 6
Tryhorn & Son	1,548 10 0	McCarthy E. Fitt	1,187 0 0
Wheeler & Co.	1,548 0 0	Langley & Johnson, 23, Wexham-road, Slough*	1,098 0 0
C. Ford	1,541 0 0		
E. Chapman..	1,425 0 0		
J. Dixon	1,302 0 0		
A. T. Catley ..	1,300 0 0		
Wickstead & Beardsell ..	1,259 16 0		

TAUNTON.—For the erection of a detached residence for the Head-master of Taunton School, for the School Council. Mr. F. W. Roberts, F.R.I.B.A., 2, Hammel-street, Taunton. Quantities by the architect:—

Pittard & Son	£2,265	T. H. Moggridge & Son	£1,860
E. G. Coles.....	1,980	A. J. Spiller	1.852
H. Pollard & Son ..	1,971	F. Small.....	1,820
H. J. Spiller & Son..	1,970	H. G. Smith, Taunton*.....	1,784
W. Potter	1,949		
F. J. Manning	1,894		
G. Pollard & Co. ..	1,866		

THIRSK.—For the installation of a central hot-water supply at the workhouse, for the Guardians:—

O. Atkinson & Sons, Town-street, Harrogate* £65 10 0

TODMORDEN.—For new secondary school on the Stile Estate, for the Education Committee. Mr. Jesse Horsfall, F.R.I.B.A., 4, Chapel-walks, Manchester. Quantities by the architect:—

Mason and Bricklayer: B. Lumb, Todmorden*.....
Carpenter and Joiner: J. Taylor, Keighley*
Slater: T. Blacka, Todmorden* .....
Plumbing, etc.: A. Waller, Todmorden* .. } £8,975 6 0
Heating: R. Dawson & Co., Stalybridge*
Electric Lighting: Fox & Co., Batley* ....
Plastering: T. Blacka, Todmorden*.....
Painting: Wrigley & Sons, Todmorden*..

[Architect's estimate, £9,560.]

VIRGINIA WATER.—For alterations to the landing-stage and construction of a slipway for Prince Edward of Wales' model brig, for the Lords of the Admiralty:—

Norris & Co., Sunningdale*..... £400

WALLINGFORD.—For drainage and other work at the cottage homes, for the Guardians. Mr. E. G. Hearness, architect and surveyor, 24, St. Martin's-street, Wallingford:—

Drainage.
Brasher & Sons, Wallingford, Berks £35 12 0
Paving.
Brasher & Sons, Wallingford, Berks £11 8 0

WHITCHURCH (Cardiff).—For erecting farm buildings in connexion with the Mental Hospital at Whitchurch, for the Mental Hospital Visiting Committee. Messrs. Oatley & Skinner, architects, Baldwin-street, Bristol:—

W. T. Morgan, Tydraw-road, Cardiff.. £2,174 0 0

WOORE. — For alterations and additions, etc., at Council School, for the Shropshire Education Committee:—

T. Healey, Market Drayton* £155 0 0

WREXHAM.—For new church at Hightown, Wrexham (including seats and boundary fence). Messrs. Prothero, Phillott, & Barnard, architects, 13, Promenade, Cheltenham:—

Lewis Bros.....	£8,555	Palmer Quarries, Ltd.....	£6,557
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W. E. Samuel	7,122	Bowman & Sons ..	6,405
Gardner & Bradley	6,959	Collins & Godfrey..	6,330
W. H. Wycherley & Co.	6,905	J. Hayes.....	6,264
A. H. Jones	6,744	W. Bowers & Co., Hereford*	6,210
A. J. Colborne	6,580		
R. Williams	6,579		

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